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ERIC P. NEWMAN
Editor

RICHARD G. DOTY
Associate Editor

Studies on Money in Early America



The American Numismatic Society
New York 1976

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Studies on Money in Early America

ERIC P. NEWMAN
Editor

RICHARD G. DOTY
Associate Editor

The American Numismatic Society
New York 1976

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Preface

The Bicentennial of American Independence is an appropriate time to review the English monetary practices in Colonial America which had their effect in being part of the cause of the American Revolution. The first two complaints in the Declaration of Independence relate to the refusal of the English administrations, both local and in England, to agree to or approve laws passed by the Colonial Assemblies. The many frustrations of the Americans in endeavoring to improve and maintain their economic status were caused by their inability to obtain satisfactory laws for desired coinage and paper money issues.

The emergency period, beginning from the start of the American Revolution and ending with the establishment of government under the Constitution, was replete with numismatic experiments on a Federal, as well as on a State level.

Thus, the United States had an unusual numismatic heritage which the American Numismatic Society wishes to honor by offering this book and preparing a special exhibit in its Museum.

The preparation of an encyclopedic catalogue of early American money would to a great extent be a republication of research already available in the many books, monographs, and articles on the subject. Instead, the Society had endeavored to include in this book unpublished or updated research which it is hoped will shed new light on specific areas of numismatic interest and stimulate others to continue into the future further research in the fascinating field of early American numismatics.

The Editors wish to thank the scholars who contributed to this book and Mr. Leslie Elam, Director of the American Numismatic Society, who has guided this project from its inception to its completion.

ERIC P. NEWMAN, *Editor*

RICHARD DOTY, *Associate Editor*

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CHAPTER 1

Introduction

Richard G. Doty

The kind of money circulated by a people discloses much about that people—about their economic development, their self-image, their culture, what they expect their financial and political future to be. Changes in a monetary system reveal concomitant changes and development of the people using that system. All of this is most applicable to Americans who, two hundred years ago, announced their independence from Great Britain, the greatest power in the world at that time.

This study will examine the varying forms of money used by American colonists from the beginning of the seventeenth century, to the 1790's when, as an inherent right of sovereignty, the United States began striking its first coinage. Almost two hundred years: a span of time almost as long as the period since the independence we are currently celebrating. It was perhaps the most formative era in American history, the seed-time of the future United States.

As America advanced from a few settlements tenaciously clinging to a narrow strip of land, primeval forest on one side, three thousand miles of dark water on the other, to a fair-sized nation, full of promise, it developed a monetary system to meet its ongoing needs. And if cultured Europeans were alternately enthralled and aghast at their witnessing of a new and unique development, a group of colonies electing to become an independent nation, whether they realized it or not, they were also witnessing something else, the growth of a monetary system which was likewise new and unique in many ways.

Above all, the development of money in America was improvisational and pragmatic. The colonists were not concerned with establishing theoretically sound monetary systems, nor were they worried about producing or being supplied with money of an artistic or inspirational nature. They required their money to perform its function, that it be accepted as being of recognized value in daily transactions. In the beginning, it did not even have to be in the traditional form of coins or paper—barter was a feature common to all of the colonies in their early phases, as was the use of prosaic objects such as nails, or of bizarre ones such as wampum. It was sufficient that, whatever the medium employed, it be recognized as valuable and acceptable by the people using it. And if, for some reason, problems arose or faith was lost in what was in current use, the colonists would

change to another. The evolution of money in early America was thus a peculiarly full one, embracing virtually all of man's search for a viable medium of exchange, interweaving barter, coins and paper money.

In the last area, that of paper money, the Americans were true innovators, for theirs was the first economy which ultimately became based upon the issue (and acceptance) of governmental paper money for economic transactions. Necessity required many innovative approaches, in order to find types of acceptable, workable media for commerce. Hedged in by British economic regulations prohibiting the holding of hard money in the colonies, finding that barter was unsuited to the needs of a rapidly growing population, the colonies simply developed the use of governmental paper money as a matter of expedience and convenience. In so doing, in the early eighteenth century, they were unwittingly becoming economic pioneers.

It is important to bear in mind, however, that money was a good deal less important in the daily life of the people than it is today. The population was smaller and even at the end of the colonial period, it was less than two percent of our present number. Moreover, the links between people and their money were not as strong as they are now. Even at the end of the colonial period, there was no single large American economic system, but literally hundreds of small ones, ranging in size from a single outlying village to a collection of merchants with an economic network spreading over a broad area. A tobacco farmer in Maryland had little to do with an artisan in Massachusetts; what commerce either had was conducted in his immediate area or in foreign trade. The smaller size and greater independence of each economic unit meant that money was less of a daily necessity than at present. In a village market, trade could and did go on by barter. And for a large merchant, transactions recorded by bookkeeping lessened the need for actual money. Finally, a much smaller percentage of Americans were directly involved in the money in those times. A farmer on the frontier might supply all of the needs of his family by his own labor and by barter for months at a time. His need for money was minimal. And America was then largely an area of small farmers.

In attempting to understand why the untested colonial expedients to provide acceptable money were largely successful, one must remember that usually they directly and constantly involved fairly few people. Money became important to everyone only when special events, such as wars, intervened. It was then that the process of innovation was accelerated, a reaction to a greater need for money. The most notable example was the Revolutionary War, when, under greater pressure than ever before, the national government created an American monetary system which relied on the individual colonies to furnish specie to redeem the national money issued.

CHAPTER 2

The Business of Colonization

William S. Sachs

For the average Englishman, America in 1600 was as remote, as mysterious, and as intriguing as the reaches of outer space are to our contemporaries. It promised adventure and romance, fame and fortune, to those free spirits who dared brave the unknown and break the constraining bonds of place and distance. Like those of modern astronauts, their exploits would be hailed everywhere and recorded forever in the annals of history.

Spain had already set a glowing example of success. It had been pushing its frontiers outward into the New World for more than a century, carving out a vast overseas empire for itself. Its ships made regular voyages in slow-moving convoys, hauling to Cádiz precious metals and coin from the mines of Mexico and Peru, hides from the La Plata region of



"Two Indian Nobles from Virginia," Engraved 1585 by Theodore de Bry (Courtesy of the New York Public Library, New York City)



Virginia and Florida. From Mercator, *Atlas*, Geographical Society).

Argentina and tropical products from the Caribbean. Portugal had similarly fashioned a colonial empire, gradually developing a plantation system in Brazil which supplied sugar to the European market.

But England in 1600 had as yet not taken even a small step toward colonization. Under Queen Elizabeth, marauding expeditions against Spanish treasure ships were encouraged, and, on occasion, she invested personally in these privateering voyages. But Elizabeth did not choose to meet the power of Spain head-on, even after the destruction of the great Armada in 1588. When James I ascended the throne in 1603, he too refused to risk his patrimony in colonizing ventures.

A few entrepreneurs tried to go it alone, but to no avail. Sir Walter Raleigh sent nearly 200 colonists to Virginia in 1585, but his colony failed to take root. Charles Leigh in 1604 attempted without success to found a



Amsterdam, 1613 (Courtesy of the American

settlement in South America. No single private individual, no matter how wealthy, had adequate resources to finance this type of activity. As a consequence, the initial impetus to colonization came from large trading companies, the only entities capable of raising the enormous amount of long-term capital required for such a venture. The American experiment thus began as an episode in British business operations.

The first permanent settlement was effected by the London Company, which received its charter in 1606 as a regulated company and reorganized in 1609 as a joint-stock company, controlled by wealthy London merchants. Early in 1607 it dispatched a contingent of men and supplies in three ships, commanded by Christopher Newport, to establish an outpost in America. On April 26, 1607, the expedition sighted the capes of Virginia, and, after a precursory survey of the area, selected a site some

fifty miles up the James; the settlement was named Jamestown, in honor of the reigning king.

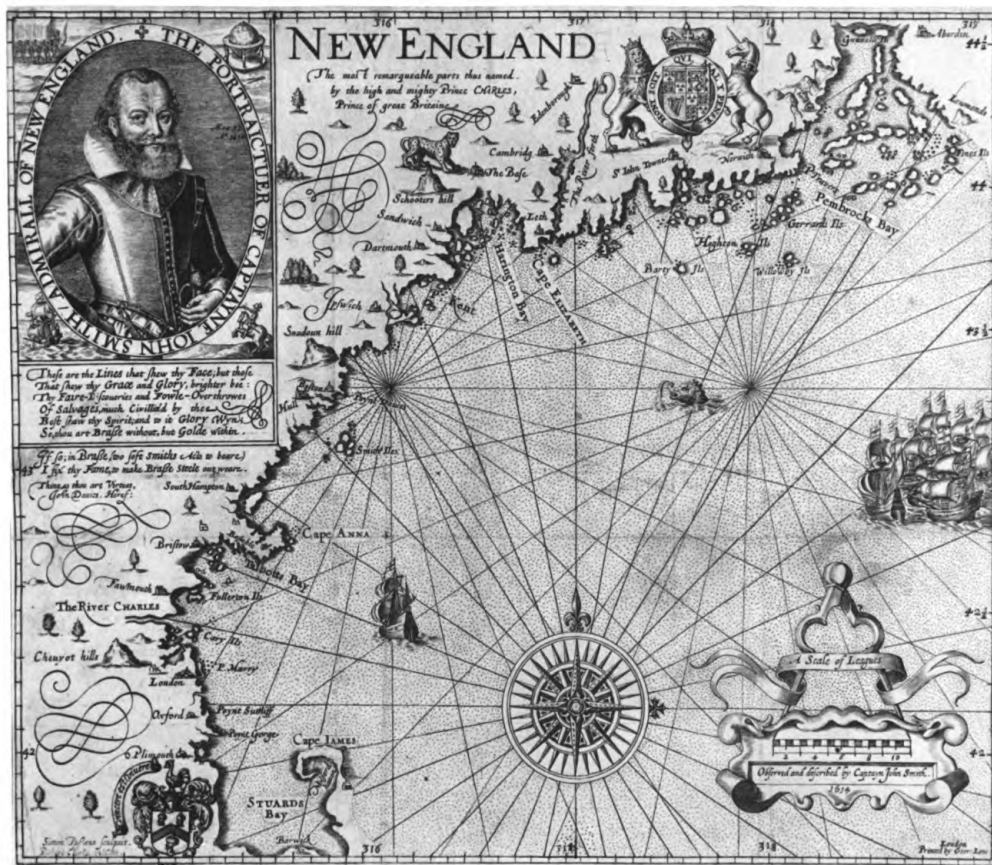
During the first eighteen years of operations, the company sent some 5,500 people to Virginia. Yet, due to the harsh conditions and the Indian uprising of 1622, in 1624 the entire population numbered less than 1,300. In 1625 the London Company filed for bankruptcy, and its charter, together with its Virginia encumbrances, reverted to the Crown.

Colonial development proceeded slowly in the succeeding decades, as virgin forest was cleared to provide adequate land for the commercial production of tobacco, for which England provided an excellent market. As the spectre of starvation faded and the probability of survival loomed ever larger, growth quickened, especially after 1640. Absentee management had disappeared with the demise of the London Company. Now those who wanted to invest in America or improve its real estate migrated to the new world so that they could manage their affairs personally. By slow degrees there came into existence a plantation system run by owner-managers. It was they who financed the transportation of a labor force to American shores, by a willingness to pay first for indentured servants and later for African slaves. British capital flowed into the colonies in the form of mercantile credit. While the colony was still sparsely populated by the end of the century, the value of its annual tobacco exports to England exceeded a quarter of a million pounds sterling. On balance, Virginia had become a growing asset.

The other focal point of colonization was New England, the singular feature of which was an inspired blending of business and religion. This was first exemplified by Plymouth, founded in 1620 by religious separatists under the leadership of William Bradford. Lacking the necessary capital to emigrate from Holland, the Pilgrims struck a bargain with a group of London Merchants whereby a joint-stock company was formed in which stock was sold for ten pounds a share. Each colonist going to America also represented one share of stock. The colonists were to work for the company for seven years, at the end of which they were to receive title to the land and all other assets were to be liquidated in accordance with stock ownership.

Plymouth Plantation was from the beginning a poor and obscure community, with its land being mortgaged for many years to London merchants. Its inhabitants were mainly rural, barely scratching out a living from the stubborn soil. As late as 1691 the colony contained no more than 7,000 persons; in that year, it was absorbed by its richer and larger neighbor, Massachusetts Bay.

The main thrust to colonization of New England came from the Massachusetts Bay Company, established in 1628. Actually, it was an offshoot of the Dorchester Company, which since 1623 had been sending out fishing



Captain John Smith's Map of New England, 1614 (Courtesy of the Beinecke Rare Book and Manuscript Library, Yale University, New Haven)

expeditions to the icy waters along the New England coast. When the company fell upon hard times, it was reorganized as the Massachusetts Bay Company with fresh infusions of capital from London and eastern England. In 1629 the new organization received its corporate charter, giving it legal power to do business.

It sent out its first contingent to America early in 1630. By June of that year, the Boston vicinity had witnessed the arrival of more than a thousand colonists, with adequate provisions and equipment to start building a civilization in the American wilderness. One reason for initial success was that the company's top officers, including its president, John Winthrop, had decided to relocate in America. Taking the charter with them, they in effect created an American corporation under control of American management.

As in Plymouth, so in Massachusetts Bay, merchants and ministers

united for a common purpose. Both the old Dorchester Company and the newly formed Massachusetts Bay Company listed a relatively sizable group of ministers among the stockholders. Of the 119 members who originally established the Dorchester Company, 20 were clergymen. Though always a minority, they were educated, highly respected, and wielded an enormous influence in the formulation of company policy. In a sense, the ministry functioned as the personnel department of the Massachusetts Bay Company, apparently with great effectiveness. They advocated careful screening of personnel and were strongly opposed to the generally-held notion of shipping undesirables to America to begin colonial ventures. They kept morale high despite the hard, dull routine of colonial life. They provided unity and purpose, a compelling reason for being.

The company's by-laws represented a fusion of English Common Law and Protestant dogma. An article of the New England Federation of 1643 set corporate objectives as the attempt "to advance the kingdom of our Lord Jesus Christ, and to enjoy the liberties of the Gospel in purity and peace." Work rules were designed to direct social behavior in conformity with theological goals and prevailing ethical codes. The mediaeval doctrine of a "just price" led to wage control and price-fixing of many commodities. Local authorities outlawed what they deemed unfair business practices, such as forestalling, regrating, and engrossing.

New Englanders developed their economy by building sturdy fishing boats and sweeping the Atlantic for cod, by combing the forests for tall pine for ship masts and naval stores, by constructing fast ships and carrying freight for anyone who had use for their services.

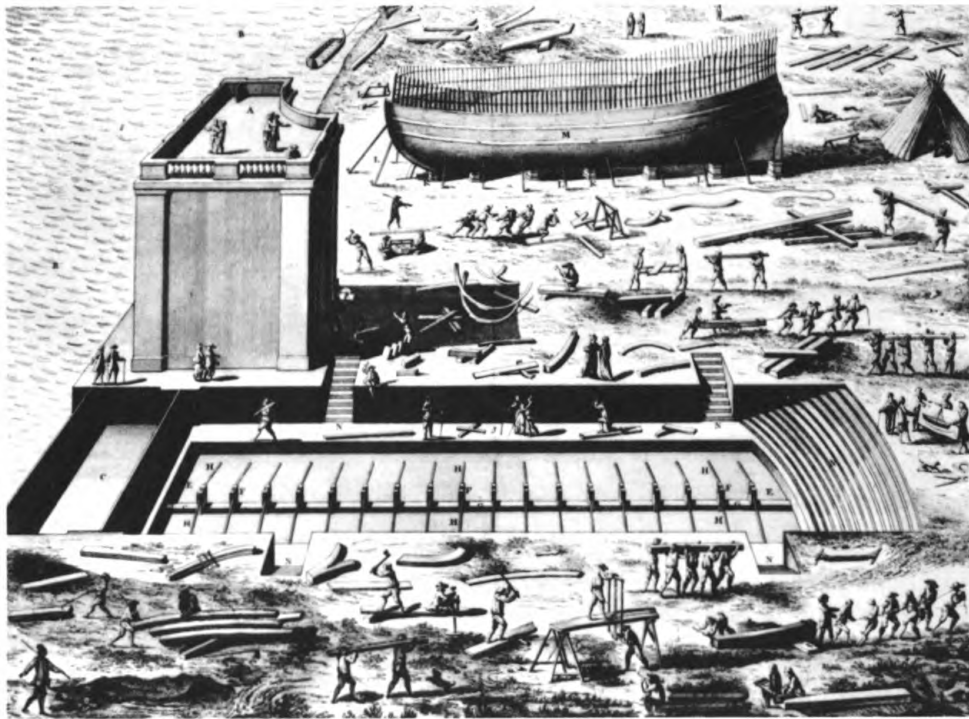
The major part of their capital was raised internally. Since the Massachusetts entrepreneur was not an absentee investor of a corporation, his entire net worth was tied up in the American project.

England also was an important source of capital in several ways. First, the merchants who migrated to Massachusetts maintained their old associations in England and sought to service those who were anxious to break into a potentially new market. The early Anglo-American trade was run on a commission basis, with the American middleman acting as an agent but not taking title to goods. British merchants thus bore the risks of ownership and credit, freeing colonial capital for long-term investments in buildings, warehouses, shipping terminals, fishing fleets, and other fixed assets. Second, British merchants often entered into limited partnerships with colonials in fishing and trading ventures. Finally, the initial success of the colony encouraged other English businessmen to relocate, adding to the influx of vital capital funds and skills.

Increases in capital meant increases in output, which in turn created both a demand for labor and a means of financing its transportation to

Massachusetts. Resources were plentiful in relation to available laborers, so that labor was always in short supply. From 1630 to 1640 an estimated 20,000 immigrants arrived at Boston. Calculating transportation costs at ten pounds per person, the total investment in relocating a labor force amounted to 200,000 pounds sterling, a staggering figure for that day.

By the middle of the seventeenth century, trade was opened up with the West Indies and Southern Europe, immeasurably expanding the scope of New England's commercial activity. As the century drew to a close, the



From Diderot's *Encyclopédie*, Paris, 1769 (Courtesy of the Columbia University Libraries)

population of Massachusetts numbered more than 60,000 and Boston, the hub of its commerce, contained some 6,700 townspeople and carried on a thriving trade with almost all parts of the world.

As the seventeenth century wore on, England increased the number of colonies in North America. The additions were accomplished by three methods: the expansion of Massachusetts and Virginia, the establishment of new colonies by British entrepreneurs, and the conquest of other countries' colonial possessions.

The New England provinces were extensions of Massachusetts. With the exception of Rhode Island, they were settled with the same logical,



From William Keith, *History of the British Plantations in America. . . Pt. 1. Containing the History of Virginia*, London, 1738 (Courtesy of the Columbia University Libraries)

organized effort as was Massachusetts itself. Soon after the initial landing, a number of towns sprang into existence—Boston, Salem, Charlestown, Cambridge, Watertown, Lynn, Roxbury, and Dorchester. Each town was similarly laid out, in much the same manner as towns had been laid out in England for centuries. In the middle was the common, with the main streets running around this rectangle. Nearby the townsmen built their church, adjoining the minister's house and church school. Each settler was given a home lot, which varied from a quarter of an acre to twenty acres, where he might plant an orchard and put in a small garden. Not far outside the village each colonist was assigned a strip of land for cultivation. The arable land was not enclosed by fencing, and consequently the entire village had to work in unison, sowing and reaping at the same time. These agricultural operations, planting and harvesting, were planned and regulated by "field meetings." Other parts of the land were reserved for common pasturage and the cutting of wood, to which all settlers had

traditional rights. Finally, a portion of home lots and arable tracts were set aside for newcomers and young families just starting out in life.

When a town felt utilization of available land was approaching its limits and wished to expand beyond its prescribed boundaries, it would petition the General Court, the provincial legislature, for permission to set up a new township. Each such political subdivision consisted of 24,000 acres. If the petition were granted, those designated to migrate would, on the appointed day, set forth to the new location under the directions of a few leading citizens authorized to supervise the journey. On arrival at the specified site, each family was again allocated a home lot, a strip of arable land, and the privileges of the common.

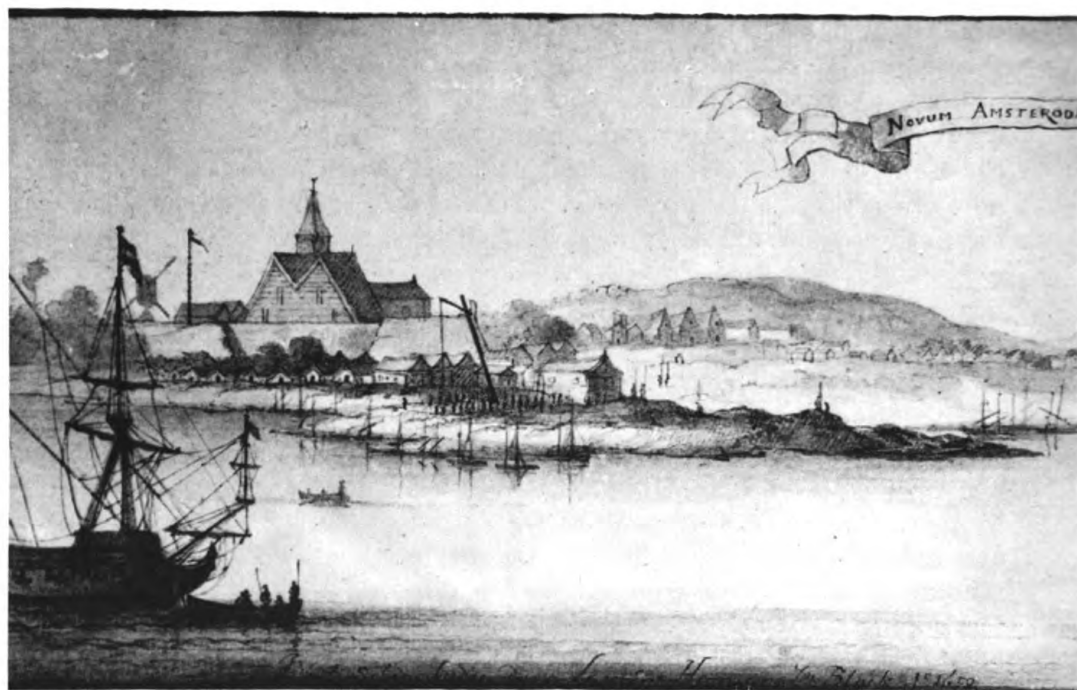
The first New England settlements beyond Massachusetts were established in 1635 when Thomas Hooker, pastor at Newtown, led a contingent of the faithful to Windsor and Saybrook on the Connecticut River. More river towns followed shortly thereafter at Hartford, Wethersfield, and Springfield, which was later incorporated into Massachusetts. The second Connecticut settlements were directed by the Reverend John Davenport and Theophilus Eaton, one of his parishioners. Both men had been original members of the Massachusetts Bay Company and, together with several other London merchants, sought to set up a mercantile center. The group wintered at Boston in 1637 and the following Spring sailed around Cape Cod to found New Haven on Long Island Sound. These early Connecticut settlements even more than those in Massachusetts symbolized the Puritan ideal of a Bible Commonwealth. Their work rules were stricter and their by-laws were justified by Scripture.

Penetration to the north was longer in coming. By about 1650, straggling communities existed at Dover and Portsmouth, whose populations were fed largely by emigrants from the south. In 1658 Massachusetts entirely absorbed the stretch of uninhabited land to the north which later became Maine.

An exception to this highly-ordered pattern of expansion was the settlement of Rhode Island, born of discord. Roger Williams, forced to leave the Commonwealth because of his theological views, fled to Narragansett Bay, where, joined by a few loyal disciples, he founded a new settlement in 1636 which he called Providence Plantation.

Two years later Anne Hutchinson, also forced to leave Massachusetts, led her small band of followers into the wilderness of Rhode Island. Together with William Coddington, a wealthy merchant and stockholder of the Massachusetts Bay Company, and Samuel Gorton, she ruled Portsmouth from 1638 until, soon quarrelling, each went his separate way; Coddington to Newport and Gorton to Warwick.

The South also witnessed population movement beyond the legal boundaries of a colony, but unlike New England, not in an orderly and or-

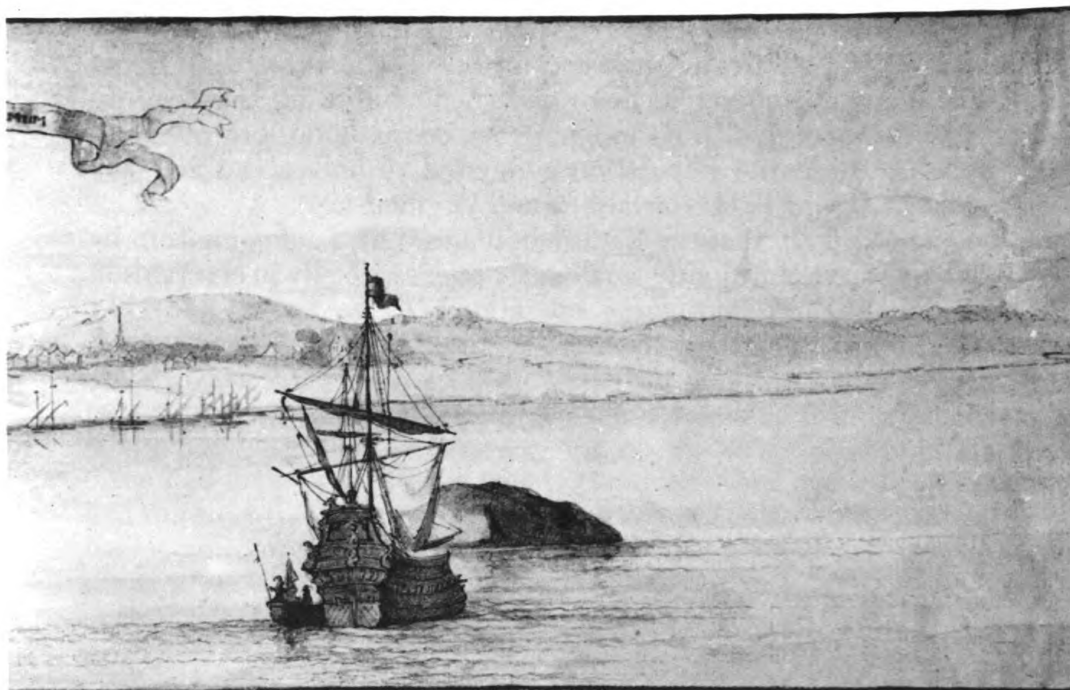


Wash Drawing of New Amsterdam, about 1650 by Laurens Block (Courtesy of the New-York Historical Society, New York City)

ganized fashion. As early as the 1640's, people from Virginia were drifting into the Albemarle Sound region of North Carolina. The motive seems to have been cheap land. In time, however, these frontier outposts became a refuge for debtors, criminals, and other undesirables.

Another large area came under English dominance when New Netherland, a Dutch colony since 1624, capitulated to a British task force in 1664. The victory gave the English control of the land from Connecticut to the Delaware River, uniting by land their northern and southern colonies.

The remaining colonies later to make up the original United States were established by individuals or small groups who acquired proprietary grants of land from the king. The first of these sole proprietors was Cecil Calvert, who inherited the grant from his father George, Lord Baltimore. George Calvert was a member of the London Company, which had sent colonists to Virginia. In 1622 he established a colony in Newfoundland called Avalon, to tap the fish and fur trade. In 1632 he was granted 10 million acres in Maryland, the charter for which was actually issued to his son. The second Lord Baltimore followed in his father's footsteps, and early in 1634 his colonizing expedition arrived in the Chesapeake Bay and finally settled at St. Mary's, near the mouth of the Potomac.



Almost forty years elapsed before the next successful colony was begun on the North American mainland. This occurred in 1670 when a group of eight proprietors, headed by John Colleton, a Barbados planter, and William Berkley, governor of Virginia, sent a convoy to South Carolina. Gliding into Charleston harbor, the voyagers settled on a site on the south side of the Ashley River.

Probably the most successful sole proprietor was William Penn who, on the death of his father in 1670, took title to the ancestral lands and effects. He was able to exchange a debt of 16,000 pounds to the estate from the king for 47 million acres of land in the New World, an arrangement which was confirmed in 1681 by a charter bearing the Great Seal of England. The next year Penn crossed the Atlantic and, four miles up the Delaware, met with his engineers to lay out the city of Philadelphia. He advertised widely. His "come to America" pamphlets were translated into three languages—Dutch, French, and German. Philadelphia was from the outset a prosperous emporium of trade, serving an ever-growing hinterland.

Georgia was founded in 1733 by Perceval, Oglethorpe, and Associates. The motives were two-fold: militaristic and philanthropic. The colony was to serve as an armed buffer zone against the Spanish in Florida and as a place where debtors could be given a fresh start.

After a century of experience, America might still be regarded, as Charles II put it, "a bare and naked country." Settlements were thinly strung out along the shoreline; here and there, following the deep indentations of the ocean or the winding rivers, communities protruded inland. By 1700 the entire population amounted to only about 260,000, with almost half living in Massachusetts and Virginia.

While one could say that the English colonies were a going concern by that year, they were a distinctly small-scale one, especially in comparison with the Spanish and Portuguese operations to the South, and they offered little hint of future American economic might. Their limited wealth and population joined with a chronic lack of specie (caused in part by restrictive British economic policies) in ensuring that the first step in the evolution of money in early America would be the widespread use of barter.



Cecil Calvert, Second Lord Baltimore (1606–1675). By Gerard Soest

CHAPTER 3

Early Money Substitutes

J. Earl Massey

Today every American readily appreciates the use of coins and paper money. We take it for granted that these currencies will buy the property, goods, and services essential to our modern living. In the early years of our colonial existence on the North American continent, however, people often had little or no money to buy the things they needed. Instead they had to resort to substitutes for money, such as Indian wampum, native tobacco, corn, or skins, and the bartering or exchange of one kind of goods for another.

Our ancestors from England, Holland, France, and elsewhere in Europe, and their ancestors before them, had known and used coins for centuries. So-called "hard" money was not new to them when they landed in the wilderness of America in the early 1600's. However, many were poor, bringing few coins with them, and, in the case of the English who had inadequate coinage in the homeland, they were discouraged from bringing coins to America at all. While the settlers managed to acquire additional "hard" money from time to time (mostly from Spanish sources), this was soon returned to the motherlands for agricultural tools and implements needed on colonial farms and in establishing new colonial businesses.

Consequently, the new Americans had little choice but to resort to the ancient custom of bartering, exchanging one commodity for another produced on their farms. Such substitutes were so widely accepted in trade that settlers even paid their taxes with farm products.

Money substitutes continued in substantial but gradually diminishing degrees for more than a century after the first seaboard settlements were established, and in some cases they persisted throughout the entire colonial period. Even after limited amounts of Spanish and other coins became available to the colonists, from the mid-1600's onward, there was not enough metallic currency to eliminate the use of farm produce, called "country pay." Long after the more populated centers of the seaboard had much improved supplies of money, farmers in the hinterland continued to depend on bartering. The country store was the center of trade in the countryside. Eggs, poultry, and other farm products could be exchanged there for sugar, clothing, hardware, and other necessities. Even today in remote rural areas similar trading takes place.

If we follow the expanded definition of money in colonial times as being any commodity of exchange, we might add that such money took multiple forms to satisfy popular needs at different times, places, and circumstances. Much as a colony might have in common with neighboring settlements, it had a separate governing body, laws, and customs, as well as different products and problems of exchange. Each colonial government periodically specified the commodities its citizens could use as money in payment of public and private debts. While colonial authorities might try to set the exchange value of a particular product from time to time, the price often changed depending on supply and demand.

It was customary in the colonial period for some settlers of each nationality to reckon the prices of articles bought and sold in terms of the coin denominations of their motherland. Even when no coins were concerned, for example, the English colonies would express values in pounds, shillings, and pence sterling. In New Amsterdam, sales were in terms of florins, guilders, and stivers. In Delaware, products were traded in terms of Swedish dalers and skillings. Meanwhile the French settlements in the Mississippi Valley were dealing in livres, sous, and deniers.

The list of commodities authorized for use as money in payment of public and private debts in the various colonies is much too long to enumerate. It consisted mostly of staple products including skins, grains, dried fish, livestock, pork, beef, tobacco, cheese, sugar, molasses, rum, flax, cotton, wool, tallow, lumber, pitch, tar, indigo, and a host of other articles of utility obtained either directly or indirectly from the soil. In the earlier days, Indian corn was one of the most important articles of exchange in "country pay," north or south. From the beginning, furs were highly regarded articles of exchange, at first along the seaboard, and later along frontiers following the western movement of population. Beaver





Copper Beaver Effigy (Courtesy of the Museum of the American Indian-Heye Foundation, New York City)

skins were in particularly great demand, at one time being the colonists' best export to the London market.

Important among strange money substitutes were nails. Before nail-cutting and-heading machines were invented in the late 1700's, nails were forged by the hand of the blacksmith, and they were valued in terms of English pence. In fact, so scarce were nails in those times that most houses were put together with wooden pegs. Nevertheless, nails were preferred and often used. Abandoned houses were sometimes burned down to salvage the nails from them. To discourage this practice, in 1646 the colonial authorities of Virginia offered to pay the owner of a house the cost of its nails to keep him from using the torch.

Other odd money substitutes in the early days of colonization were powder and shot. In Maryland and Virginia powder and shot were about the only media in which ship duties were paid for a considerable length of time. Meanwhile, the main substitute currency in both of these colonies was tobacco, used for transactions large and small.

Like corn, tobacco, the principal form of money in Virginia and Maryland, was a native product of the New World in great demand in England and Continental Europe. Commercial cultivation of the tobacco leaf in Virginia is said to have begun in 1612 by John Rolfe, husband of Pocahontas.

Virginia made tobacco the official currency of the colony in 1619, the measure being the first law passed by the first General Assembly at Jamestown. The price was fixed at 3 shillings per pound for the best grade

and 18 pence for the "second sorte" lower grade. Tobacco was also a major crop in North Carolina. The highly favorable trade balance enjoyed by the southern colonies was primarily due to tobacco being the mainstay of their economic activities.

In this sense, it may be said that Virginia grew her own money for nearly two centuries and Maryland for a century and a half. But like many money substitutes, tobacco presented special problems which gradually lessened its desirability and importance. It varied greatly in quality and could not be easily transported and preserved. The biggest problem,

July 14th. 1703. Prices of Goods

Supplied to the
Eastern Indians,

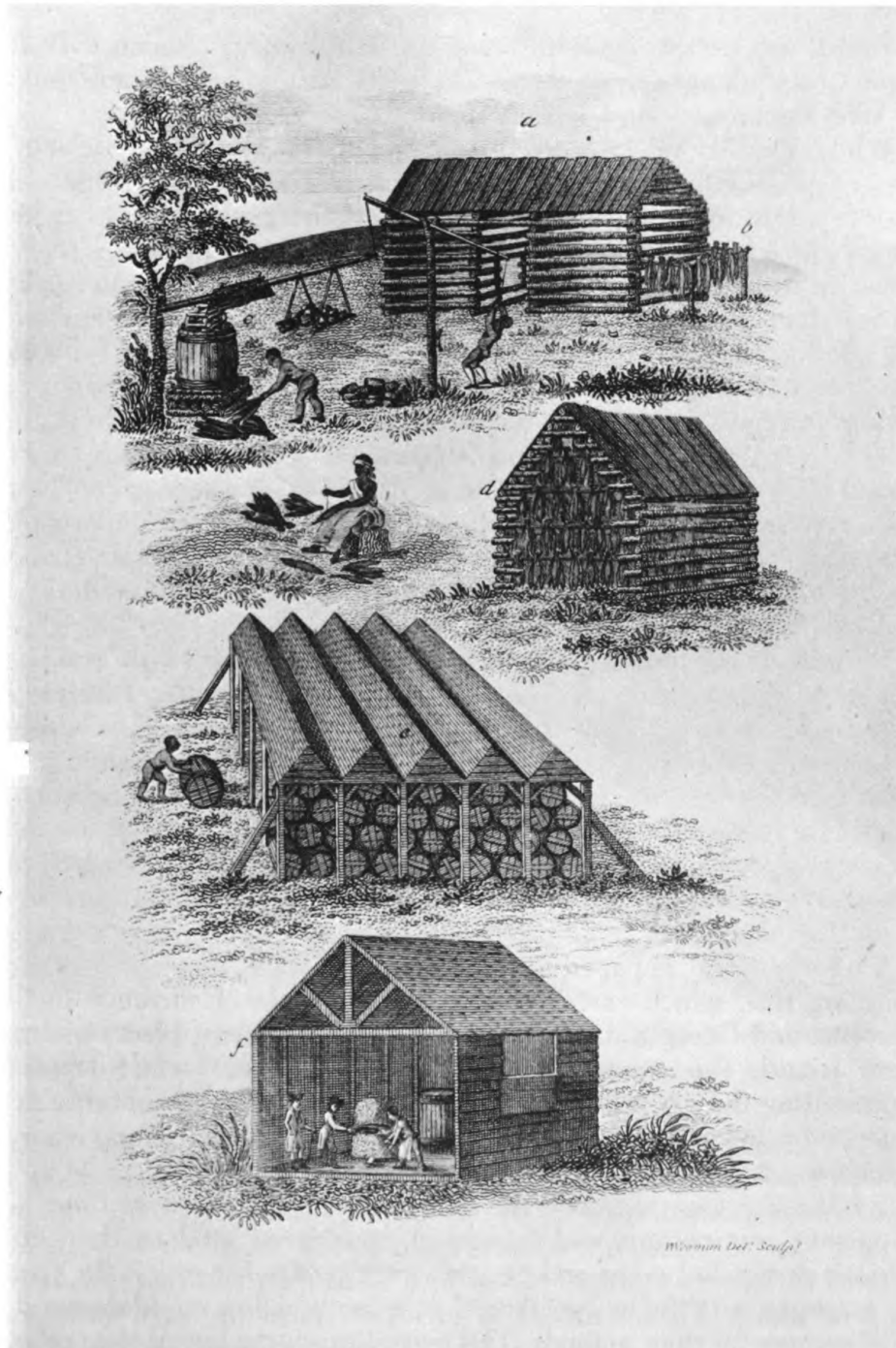
By the several Truckmasters ; and of the Peltry received
by the Truckmasters of the said *Indians*.

One yard Broad Cloth, *three* Beaver skins, *in season*.
One yard & half Gingerline, *one* Beaver skin, *in season*.
One yard Red or Blew Kersey, *two* Beaver skins, *in season*.
One yard good Duffels, *one* Beaver skin, *in season*.
One yard & half broad fine Cotton, *one* Beaver skin, *in season*.
Two yards of Cotton, *one* Beaver skin, *in season*.
One yard & half of half thick, *one* Beaver skin, *in season*.
Five Pecks Indian Corn, *one* Beaver skin, *in season*.
Five Pecks Indian Meal, *one* Beaver skin, *in season*.
Four Pecks Pease, *one* Beaver skin, *in season*.
Two Pints of Powder, *one* Beaver skin, *in season*.
One Pint of Shot, *one* Beaver skin, *in season*.
Six Fathom of Tobacco, *one* Beaver skin, *in season*.
Forty Bishets, *one* Beaver skin, *in season*.
Ten Pound of Pork, *one* Beaver skin, *in season*.
Six Knives, *one* Beaver skin, *in season*.
Six Combes, *one* Beaver skin, *in season*.
Twenty Scaines Thread, *one* Beaver skin, *in season*.
One Hat, *two* Beaver skins, *in season*.
One Hat with Hatband, *three* Beaver skins, *in season*.
Two Pound of large Kettles, *one* Beaver skin, *in season*.
One Pound & half of small Kettles, *one* Beaver skin, *in season*.
One Shirt, *one* Beaver skin, *in season*.
One Shirt with Kuffels, *two* Beaver skins, *in season*.
Two Small Axes, *one* Beaver skin, *in season*.
Two Small Hoes, *one* Beaver skin, *in season*.
Three Dozen middling Hooks, *one* Beaver skin, *in season*.
One Sword Blade, *one & half* Beaver skin, *in season*.

*What shall be accounted in Value equal
One Beaver in season : For.*

One Otter skin in season, is *one* Beaver
One Bear skin in season, is *one* Beaver,
Two Half skins in season, is *one* Beaver
Four Pappcote skins in season, is *one* Beaver
Two Foxes in season, is *one* Beaver.
Two Woodchocks in season, is *one* Beaver.
Four Martins in season, is *one* Beaver.
Eight Munchs in season, is *one* Beaver.
Five Pounds of Feathers, is *one* Beaver.
Four Raccoones in season, is *one* Beaver.
Four Sell skins large, is *one* Beaver.
One Moose Hide, is *two* Beavers.
One Pound of Castorun, is *one* Beaver.

Price List in Terms of Beaver Pelts (From Taxay, *Money of the American Indians*)



Stages in the Culture and Marketing of Tobacco. From William Tatham, *An Historical and Practical Essay into the Cultivation of Tobacco*, London, 1800 (Courtesy of the Rare Book Division, The New York Public Library, Astor, Lenox and Tilden Foundations, New York City)

however, was overproduction. Valued at 3 shillings a pound in 1619, it became so abundant by 1645 that it was worth only $1\frac{1}{2}$ pence a pound, and by 1665 a penny a pound, a small fraction of its original value.

When Virginia realized the inconvenience of its major currency, its uneven production and decreasing value, as early as 1633 the colony passed a law requiring that "all contracts, bargains, pleas and judgments" be made in coin. This law proved wholly ineffective, simply because so few coins were available. In a further effort to raise tobacco prices, the colony in 1640 ordered the burning of all the bad and half of the good grades of leaf. In 1666, Virginia and Maryland jointly ratified a treaty to stop planting tobacco for one year and to use other money substitutes instead. All of these laws proved only temporarily effective.

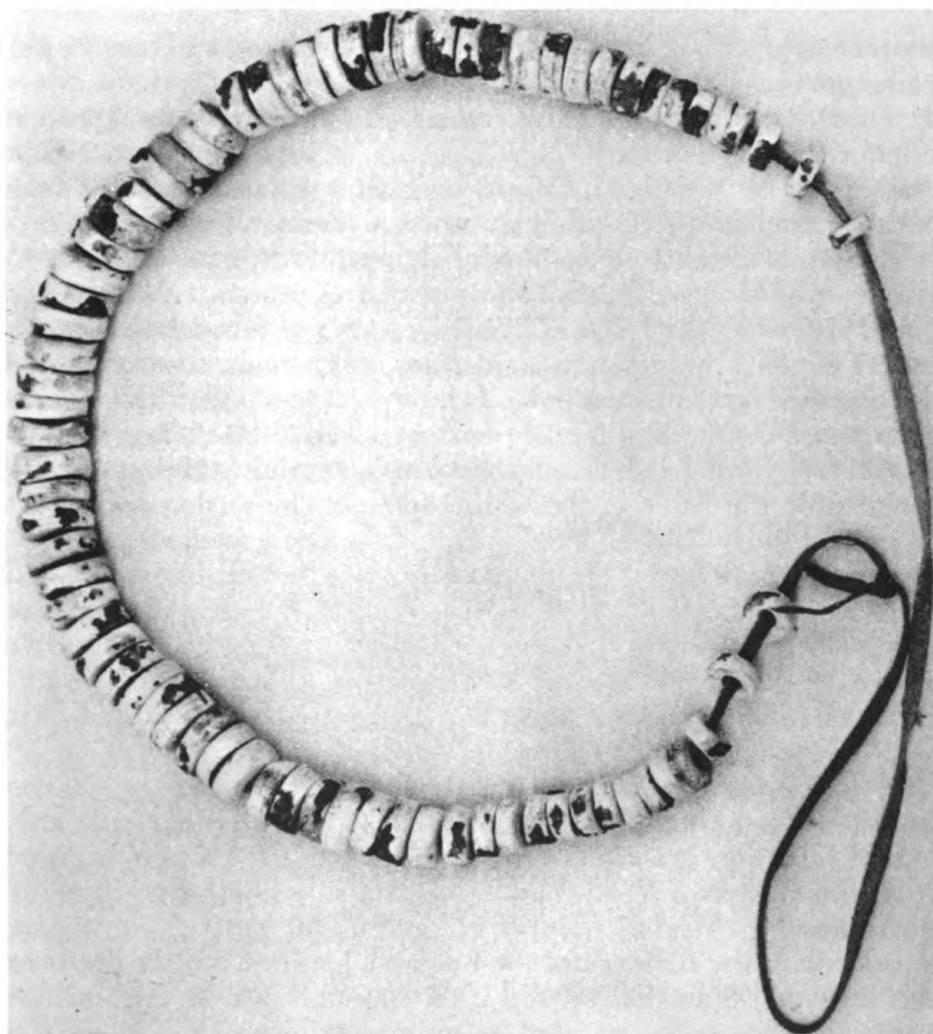
As late as 1683, Virginians, still discouraged by low tobacco prices, petitioned the government to stop the planting for another year. When the authorities refused, certain rebellious people went about destroying tobacco plants wherever they found them. These so-called "tobacco riots" caused the colonial government to denounce such actions as traitorous, violators being subject to the death penalty.

Tobacco was exposed to considerable losses due to costly transportation and improper storage. To solve this problem, tobacco receipts were issued. This more convenient and relatively modern form of money—one of the earliest forms of paper currency—was legalized in Virginia in 1727. Each receipt constituted a circulatory note for a quantity of tobacco of a particular grade in a regional warehouse. The notes became one of the most trustworthy and useful currencies, remaining so for many decades. They were widely circulated too, honored by traders in northern as well as southern colonies.

Similarly useful as paper currency were the warehouse receipts used in handling rice, which early became a major form of currency in South Carolina and Georgia. In such cases where convenient places of storage were found, the warehouse became the "bank," while the paper representing the grain or other deposit became widely acceptable as currency in trade between the colonies as well as within the colony where the receipt was issued.

While coins were scarce in the colonial period, there were times when important occupations and businesses considered vital to the colonial welfare demanded coins and got them with official sanction. In Virginia, for example, a 1643 law specified that horse breeders could demand metallic money for their animals. This exception to the law of the realm was intended to encourage horse breeding, so essential to farming and transportation.

Indian wampum was widely used by the colonists for small change, particularly by the Dutch in New Netherlands and the English in New



Clam Shell Beads, or "Roanoke," the Aboriginal Currency of Virginia (As published in Taxay, *Money of the American Indians*)

England. Wampum, sometimes called wampumpeage or peage, was also used as far south as the Carolinas, where it was known as "Roanoke." It was really small shell money, one of the oldest currencies known to man; it consisted of the inner whorls of cowries or tiny seashells, or pieces of outer shells, polished and made into beads. Strung together in belts or sashes, they were important emblems of Indian culture, prized as ornaments as well as useful for currency.

Among the first items of exchange in New England were furs, grain, and fish, which were useful in payment of taxes as well as private debts. Later pork, beef, wool, corn, and livestock were added to the list. Wampum was also adopted as a legal currency in the early days of Massa-

chusetts' colonization, being ordered in 1637 to "pass at six beads a penny for any sum under 12 pence."

In his *Money of the American Indians* (1970), Don Taxay reports that wampum was introduced in New England in 1627 by Isaac De Razier, secretary of the New Netherlands, with £50 in beads brought to Plymouth, Massachusetts for purchase of corn. Taxay notes that, according to the legends of the Iroquois (including upstate New York tribes), their first genuine wampum beads, possibly of freshwater shells, date from before 1570, when the Iroquois Confederation was formed. Eastern Long Island, a center of wampum manufacture, was a major source of the currency acquired by the Dutch.

Like other commodity money, wampum varied in quality and value. The color of most beads was either purple or white, the purple being about double the value of the white. Some of the settlers soon learned that white beads could be dyed purple or so counterfeited. Reports are that this may have fooled the colonists but not the Indians, who soon detected the false wampum. In Connecticut, in 1648, four white beads were worth a penny, but in Massachusetts the rate was six to eight beads for a penny. Connecticut decreed that wampum should be strung "suitable and not small and great uncomely and disorderly mixt as formerly it hath been."

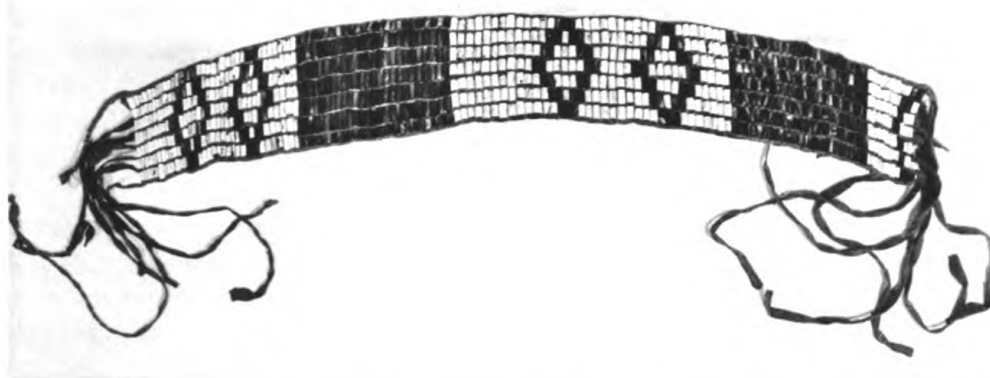
The unit of wampum money was the fathom, consisting of 360 beads, worth 60 pence for a time. Though in Massachusetts the shell money was first receivable for debts of only 12 pence, in 1641 the limit was raised to £10, but only for two years; then the amount was lowered to 40 shillings. Wampum was particularly convenient and useful currency in the beaver skin trade with the Indians in New England. Desiring a more flexible and stable currency than that offered by wampum, however, Massachusetts became the first colony to mint its own coins, from 1652 to 1682. The coinage was stopped because English regulations forbade colonial coinage. The new coins brought some relief but only temporarily interrupted the flow of commodity monies.

New England soon began to find other new sources of currency. Its shipping trade, larger than that of other colonies, grew rapidly; this trade brought in coins from countries frequented by the New England vessels. However, these coins were never plentiful enough to satisfy fully the currency requirements of an expanding trade. Still, commodity payments began to give way to other more convenient and satisfactory kinds of money, including paper forms. Among them were not only warehouse receipts, but credit established abroad for future uses, and a limited paper money issue, Massachusetts treasury bills of 1690 being one of the first official uses of paper money. It was not until 1670 that Massachusetts repealed the law that made corn and cattle equivalent to money.

During the Dutch reign in New Netherlands (up to the English occupa-

tion in 1664), the colony is said to have provided more coins for its settlers than did England for hers. Wampum was the first legal currency, but it was subordinate to the silver coinage of Holland. The shell money imported from eastern Long Island (English settled) was priced at six white beads for a stiver, but later dropped to eight beads a stiver by the ruling body, the Dutch West India Company, which periodically changed the price to meet supply and demand. Like tobacco, wampum suffered from overproduction. As a result, the price of the shell money dropped to 24 beads to a stiver by 1662.

Beaver skins also became an important currency in the Dutch colony's trade with the Indians. At first rated at 8 florins or 160 stivers per skin, the price was later lowered to 6 florins. The price of beaver in the colonies as a whole was rated by the pound as well as by the skin, being receivable in



Wampum Belt (Courtesy of the Museum of the American Indian-Heye Foundation, New York City)

Massachusetts at 10 shillings per pound. In that colony, the General Court also set the price of payments in various kinds of produce. In 1640, for example, corn was rated at 4 shillings per bushel, wheat and peas at 6 shillings, and rye and barley at 5 shillings.

Obviously, the use of produce such as grains for money involved transportation costs which had to be taken into account. Colonial authorities accepting produce for taxes, for instance, estimated their collection and haulage costs at about 10% of the commodity's selling price.

Naturally, the transportation of perishables was at times hazardous. An example is provided in the records concerning a collection of 150 bushels of peas for taxes one year in Springfield, Massachusetts. Transporting the public revenue was considered by the local constable to be most cheaply done by boat on the Connecticut River. However, passing over a falls, the craft shipped water, spoiling the peas. Such experiences detailed in co-

lonial records leave no doubt as to the inconveniences and hazards of commodities as money, the value of which was generally rated much lower than other forms of money.

When coins gradually became available, merchants began insisting on coin payments, rather than commodity exchanges. At times, payment in kind was flatly refused, leading to great problems. In his *Journal* of October, 1640, John Winthrop, governor of Massachusetts, observed that "men could not pay their debts though they had enouth," adding that prices for land and cattle soon fell to one-half or as little as one-fourth of their former valuation.

A further example of the colonial hardships in debt payments is also cited in Winthrop's *Journal*, when he writes of a farmer named Rowley, who paid his hired servant in so-called "country pay." It was then customary to pay wages in coin for hired servants and tradesmen. But in this case, coins not being available, Rowley had to sell his pair of oxen to pay his hired man for a term of service. When Rowley informed his servant he could not keep him any longer, not knowing how to pay him next year, the servant replied that he would be willing to accept payment in cattle. "But how shall I (pay you) when all my cattle are gone?" asked Rowley. "You shall then serve me, and so you may have your cattle back again," the servant replied.

With so many odd kinds of payment made in the era of bartering, the patience of settlers and tradesmen must have been tested to the limit. A ferry ride, for instance, could be a complex transaction, that is, to arrive at the correct fare for the traveler, and his rig and animals. In Massachusetts the ferryman, under a 1648 law, might accept wampum but refuse the traveler passage if it was not of the right amount properly strung. In Marblehead, though, where a Signor Blitz was giving a performance, theatergoers short of the required coins to pay the admission found that they might do so in fish.

Development of colonial trade after 1650 played a major role in the prosperity of the entire seaboard. Tobacco had early secured a favorable trade balance for the South. The Middle Atlantic colonies prospered with grain shipments abroad, while New England merchants played a leading role in both international and intercolonial trade. New England was the center of shipbuilding. Vessels from this region took cargoes of dried fish and lumber to the West Indies, where sugar and molasses were obtained. From the molasses New England made rum which was shipped to Africa to buy slaves for sale in the West Indies. This so-called "triangular trade" enabled New England vessels to supply the colonies with a large assortment of coins of many national origins; this coinage influx contributed to a decline in the barter system, at least along the Atlantic seaboard.

CHAPTER 4

Foreign Specie Coins in the American Colonies

Raphael E. Solomon

As the American economic picture became more sophisticated, many types of foreign gold and silver coinage came into common usage in the colonies. This complex specie mixture imposed the necessity of determining exchange values of the various coins issued by European countries and their minting colonies in the Western Hemisphere. The major factors influencing the circulation of foreign gold and silver money in British America were the consequences of the political and mercantile rivalry of the trading nations, maritime trade routes, and the sources of the immigrant coinage.

Prior to the American Revolution, the economy was largely agrarian, but the colonists were also engaged in fishing, lumbering, trapping, and slave trading. In addition, there was a modest amount of manufacturing, in which shipbuilding occupied a prominent role. The colonists engaged in large-scale bartering during the entire colonial period, exchanging goods and services at local pound, shilling, and pence rates. As the economy expanded, the demand for coins progressively increased to meet the needs of foreign and domestic commerce. However, English restrictions put severe limitations on the export of coins from England, causing a dearth of specie currency in British America. The specie drainage from America for English manufactured products greatly contributed to the friction between Crown and colonies and became one of the irritants that contributed to the American Revolution.

Colonial importation of circulating foreign coins was brought about mainly by virtue of the extensive maritime commerce which the colonists engaged in from the earliest times. The initial launching of a ship in the colonies for seaborne traffic took place in 1631 in Massachusetts Bay Colony. The shipbuilding industry grew quickly during the next decade and by 1641 official regulation was required. Massachusetts Bay had 730 vessels by 1676, many participating in international shipping. Since the southern colonies supplied England with exports and the northern colonies made sizeable shipments to foreign countries, a larger proportion of the imported specie entered the northern ports.

In addition to orthodox international trade, smuggling, piracy and

privateering brought in foreign coin. Spanish ships were the principal targets of piracy and privateering, as they carried the richest cargoes. Northern seaports were magnets for both traders and pirates due to the higher rates paid for foreign specie.

Jamaica was yielded by Spain to England in 1655, making available to the colonists a large and profitable trading base in the West Indies. This island became a convenient place to obtain gold and silver coins minted in the Spanish dominions in the Western Hemisphere and the American colonies had a favorable balance of trade with the West Indies. Buccaneer activity made Jamaica a haven for marauders, particularly between 1660 and 1680, intensifying the early flow of Spanish-American coinage to the North American colonies.

The principal monetary result of Spanish conquests in the New World was the phenomenal increase in the supply and production of gold and silver, the latter generally being best suited for domestic and international coinage purposes in the seventeenth century. Seizure of the large accumulated gold and silver treasure by the Spanish from the natives and the huge production from the mines located in Spanish America elevated Spain to a dominant position in world trade and into a period of economic grandeur. The vast coinage emanating from Spanish-American mints revolutionized global commerce and was readily accepted by traders everywhere.

The universal high regard for the Spanish colonial gold and silver coinage was based upon their generally consistent good quality and availability in quantity. While there was occasional debasement, it was minor in comparison to European practices.

Patently, the bonds between England and her American colonies were based on language, culture, and political philosophy. Yet money economics provided a framework for the seeds of political divergence. Naturally, Anglo-American attitudes included a strong desire to find solutions to unsatisfactory money transactions. Authorities in the various colonies took limited action to fix values for the circulating foreign coins. These values or ratings were in the local colonial pound, shilling, and pence moneys of account, different in each colony and from English sterling.

The Massachusetts General Court, on September 27, 1642, "considering the oft occasions wee have of trading" with "the hollanders at the Dutch plantation & otherwise; do therefore order that the holland ducatur worth 3 gilders shalbee currant at" six shillings, and "the rix dollar being 2½ gildrs shalbee likewise currant at" five shillings, and "the ryall of 8: shalbee also currant" at five shillings.

Virginia outlawed barter dealing and made the Spanish piece of eight the standard currency, rated at six shillings, in 1645.

The General Court of Assizes, meeting in New York, October 2-7, 1672, ordered that "a Boston Shilling shall pass for one shilling, and a good piece of Eight Spanish Coine, wether of Mexico, Seville or pillar piece shall be valued and go for six shillings in any payment either for debt and de-



Pine Tree Shilling, ca. 1670

mands or purchasing goods or merchandize between man and man." Some years later, in response to local request, New York expanded the rating to other denominations as shown by the Council Minute of September 13, 1683:

fforasmuch as the Deputy Mayor and Aldermen of the City of *New York* have this day presented a petition setting forth the severall inconveniences & abuses committed for want of a certain rate of valuation to be put & established for the Currency of Spanish coyns; it is herefore Ordered, that all peeces of eight being *Sevil Mexico*, or pillar, not weighing lesse than fiveteen penny weight shall passe for six shillings & all *Peru* of the same weight (provided they be good silver) shall passe for five shillings, all halfe pieces at three shillings; all Quarters at one shilling & six pence & all Rials at nine pence. Given under my hand this thirteenth day of September 1683.

Prior to 1728, it was common practice in England and America to designate the piece of eight reales by the appellations of Seville, Mexico, Pillar, or Peru, the distinction being without accurate standards. Cobs were sometimes called "Peruvians" regardless of the actual mint of origin. Many of the rating laws valued the silver mintage of Peru somewhat lower than that of other Spanish-American mints, because Sir Isaac Newton, as English Master of the Mint, reported in 1717 that Peruvian pieces of eight were of "uncertain allay." Despite the generally good reputation of the products of the Spanish New World mints, there was some falling from grace, as the Spanish Royal Ordinances of 1650 and 1653, issued during the reign of Philip IV state that there "occured a scan-

dalous falsification in the fineness of silver monies coined in our Peruvian mints."

In addition to coins imported from Spain and Spanish America, other foreign specie appeared in the American colonies. The great mixture of foreign gold and silver coins which circulated was complicated by normal abrasion, weight and fineness changes, lack of adherence to the legal standards, counterfeiting, shaving, sweating, filing, clipping, and changes in minting techniques. As the condition of the circulating coinage was in continuous flux, many colonists found it expedient to possess coin scales as standard equipment. From time to time, exchange tables were published indicating coin values in monies of account, and usually the weights of the various denominations in troy ounces, pennyweights and grains.

The British requirement for a special license for the export of foreign bullion or coins from England aggravated the unfavorable trade balance which the colonies had with the mother country. Generally trade between the colonies and England was transacted by bills of exchange. Inflation of the money of account and the shortage of coinage caused depreciation in the purchasing power of the money of account as related to the principal coin circulating in America, the Spanish piece of eight. In order to remedy this situation, the colonies independently sought to prevent what coins they had from flowing out of their respective areas by increasing the local money of account valuation of circulating specie. The sterling rate for the Spanish silver dollar was four shillings, sixpence. England attempted to counter the effects of the higher American ratings by putting limits on colonial money of account used to purchase silver coin.

The foreign specie rated by the individual colonies was gladly received by all creditors on that basis. Values of circulating coins were not uniform between colonies and at times each colony had its own rules and regulations. Court judgments were in local colonial pounds, shillings and pence.

Stubborn English monetary policy, in relation to her dominions, was not confined exclusively to the North American colonies. Queen Anne's proclamation of June 18, 1704 was applicable to all British territory in the New World, effective January 1, 1705 and was as follows:

We having had under our consideration the different rates at which the same species of foreign coins, do pass in our several colonies and plantations in America, and the inconveniencies thereof, by the indirect practice of drawing the money _____ from one plantation to another, to the great prejudice of the trade of our subjects; And being sensible that the same cannot be otherwise remedied, than by reducing of all foreign coins to the same current rate, within all our dominions in America;

The proclamation provided that the Spanish dollar should not pass in

any colony for more than six colonial shillings. This was the Massachusetts rating of 1697. Other current foreign silver coins were to be rated proportionately, on the basis of silver content. Only silver coins were included, and the omission of silver bullion and gold left a major loophole for avoiding its effect.

The reaction in America of the proclamation was one of dissatisfaction. Some copies of the document were in private hands before its publication in New York which customarily offered opposition to English monetary policy. Actual publication in New York City was on February 5, 1705, and for about five days all trade ceased, no market was operating, and goods could not be purchased for ready money. Provisions of the proclamation were reconfirmed by Parliament in 1707; however, little attention was paid to the designated maximum values in America, and the ratings became known as Proclamation Money.

Trading patterns between the North American colonies and the West Indies were altered without violating the new limitations set by the Crown. The West Indies adopted a virtual gold standard by the strategy of rating Spanish gold coins by weight, not as multiples of the Spanish dollar, a method which could be used to depreciate values and stay within the law. North American colonies reciprocated and rated silver by the ounce. This procedure caused gold to flow to the islands, and at the same time, silver flowed to the mainland, with the net result that the colonial money of account value of Spanish dollars tended to continue a fluctuating differential over sterling value.

On March 3, 1708, Queen Anne repealed a New York enactment, indicative of colonial thinking at the time. The document read:

AN ACT for regulating and preventing the Corruption of the Currant Coyn. For Preventing of the Corruption of the Coyn Usually Currant within this Colony. Be it Enacted by the Governor Council and Assembly and by the Authority of the same That from and after the Publication of this Act none of the Severall Coyns herein after mentioned shall be paid Received or taken but at the Rates and Value herein Limitted and Exprest and no otherwise That is to say All Spanish half Ryals fair unclipt and no manner of way defac'd at four pence half penny each All Spanish Ryalls fair unclipt and in no manner of way defac'd at nine pence. All Spanish Double Ryalls not Clipt nor in any manner of way Defac'd at Eighteen pence. All other Spanish money of the Coyns of Mexico Seevil and Pillar pieces whatsoever at Eight Shillings the Ounce Troy. All pieces of Eight and half pieces of the Coyn of Peru at Six Shillings Eight pence the Ounce Troy. Lyon Dollars that are good and in no manner Defac'd at five Shillings and Six pence each and half Dollars such as before mentioned at Two Shillings and Nine pence each. And that from

hence forth no person or persons in this Colony shall be bound or Compell'd to Receive in payment any of the Species of money before mentioned at any higher or greater price or Rate than is before Sett forth any Usage or abuse to the Contrary hereof notwithstanding.

The Lion dollar under the name of "dog dollar" had been given the same rating about fifteen years previously. This coin was the leeuwen-daalder, minted in the Netherlands as a trade coin for circulation in the Levant. On September 24, 1709, New York prohibited exportation "by



Potosí, 8 Reales 1637; Bogotá, 2 Escudos 1650

Land or by Water, any Spanish Coin, Cevill, Pillar, Mexico or Peru, Lyon Dollars, half Dollars or any other Foreign Coin, Gold, Silver or Bullion whatsoever, under Penalty of forfeiting Double the Value of all Such" gold, silver, or bullion.

The Spanish unit known as the real ("royal") was the basic denomination for silver coinage. It was practical for most coinage of the Spanish American mints to be in units of eight reals or pieces of eight. The piece of eight reals became known as the Spanish dollar, adopting the English name for the European thaler.

The colonies imported a considerable amount of a very crude type of specie coinage minted by the Spanish authorities and known as "cob"

money. This name was derived from *cabo de barra* meaning "end of a bar," and the money was also called *macuquina* or *macaca*. Natives in colonial Peru dubbed the cobs "*m'quina de papalote y cruz*," literally "windmill and cross money," referring to the devices depicted on the pieces. In minting cobs, planchets were lopped from sections of round or oblong bars of correct fineness and hammer-struck with coarse dies, the use of punches sometimes being in evidence. Planchets exceeding the weight standard were clipped at the mint, a procedure resulting in highly irregular edges. A great many cobs were of insufficient diameter to receive the entire die, dates showing in part or not at all or being indecipherable. A large variety of shapes exist, such as relatively circular, polygonal, almost square, somewhat saucer-like and thick in the middle with thin edges. Early in the eighteenth century, mintings became generally thicker and smaller with almost flat obverses, reverses showing surface cuts and



Mexico, 8 Reales 1743

hammer markings after the original impression. Nevertheless, some cobs are perfectly circular like normal coins. Despite all the irregularities, cobs, both in silver and gold, were usually of lawful weight and fineness, or almost so within a few grains, a highly important quality for commercial purposes.

Crude specie coinage of Spanish America was gradually replaced by the introduction of coins struck on the screw press. An overlap occurred causing simultaneous minting of the new type coinage with a protective edge rolled on and the irregular cob type, due to an initial shortage in the various mints of trained workers and equipment to produce the improved coinage output. The milled peso duro of eight reales, known as *dos mundos* or *columnaria*, authorized in June 1728, first minted in Mexico in 1732, was called the Spanish milled dollar by the American colonists. It and its fractions became the most important coins to circulate in colonial America.

The silver denominations that circulated in the British colonies in America were:

Spanish-American Coin	Equivalent Spanish Dollar Value
8 reales	1
4 reales	1/2
2 reales	1/4
1 real	1/8
1/2 real	1/16

This method of money reckoning became firmly established in the trading habits of the colonists. It is remarkable to realize that two hundred years after independence, Americans still calculate security price variations in eighths on many stock exchanges, notwithstanding the decimalized coinage system established in the United States in 1792.

The pistareen, minted in Spain, circulated in colonial America but was not considered as a part of the regular Spanish dollar series. Pistareens were lightweight silver coins with a face value of two reales, but did not have the intrinsic silver value of a Spanish-American two real piece. Actually, the intrinsic value of the pistareen was less than one-fifth of a Spanish dollar.

The eight escudo gold coin called the Spanish doubloon was minted in Spain and the New World and was one of the most widely circulated gold coins in the American colonies. The first minting of cob doubloons in the New World took place in 1679 in Mexico. Starting in 1732, gold coinage issued by Spanish-American mints underwent a transition parallel to that of silver, the cob types slowly giving way to much improved coins struck on round planchets with screw presses.

Because of the higher values of gold denominations in comparison with silver, more accuracy was demanded for gold specie ratings than for silver. The accepted standard weights used in the published tables were



Spain, 8 Escudos 1639



Mexico, 8 Escudos 1742

generally approximate, though slightly inconsistent, and in some tables the term "least weight" was used, meaning the acceptable minimum. In referring to important denominations of the Spanish escudo coinage in addition to the doubloon, American colonists called the four escudos a double pistole and the two escudos a pistole, adding to the confusion.

The French currency reform of 1640 brought about the minting of the louis d'or. These coins issued subsequent to 1708 were often called French guineas and were listed as such in many exchange rating tables published in the colonies. Indicated standard or least weight for the French guineas was about 5 dwt. 5 gr., and for the actual English guineas it stood at 5 dwt. 6 gr. Because of frequent weight changes, a general recoinage in both gold and silver took place in 1726; therefore, another confusing misnomer existed for the louis d'or which was listed in rating tables as a French pistole at about 4 dwt. 4 gr., slightly less than actual Spanish pistoles. The unstable louis d'or coinage, which included doubles and halves, had a required fineness of 0.9167 but was nearer to 0.900. The French silver ecu or crown experienced wide circulation in the American colonies. The Pennsylvania 1751 least weight requirement for French crowns was 17 dwt. 6 gr. and the exchange valuation was set at seven shillings sixpence, exactly the same weight and rating as for the Spanish milled piece of eight.



France, Louis d'or 1668; "French Guinea" 1710

The English guinea (the name was derived from the West African area of Guinea, which was the source of the gold from which the earliest English pieces were minted), was first coined in 1663. Prior to the American Revolution, the guinea and its multiples and fractions had a required fineness of 0.9167. Coinage troubles plagued England as well as her colonies. Late in the seventeenth century, silver coin shortages developed in England. Reintroduction of screw press minting in 1662 did



France, Ecus 1690; 1724

not eliminate the large quantity of worn and clipped hammered coins then in circulation. In 1696 a general recoinage of silver was undertaken, with the Crown absorbing the loss upon exchange of old for new coins. Initially valued at twenty shillings, the guinea was permitted to fluctuate in terms of the shilling, approaching thirty shillings at one time, due in part to a decreased value of silver but mainly because of the deteriorated condition of silver coins. Upon the recommendation of Sir Isaac Newton, the guinea was fixed at twenty-one shillings in 1717, a rate that over-valued gold by a little more than one and one-half percent.



Great Britain, Guinea 1713

Generally, export of English coins was forbidden but export without duty of foreign coins, bullion, and wrought silver was allowed. With all the restrictive policies imposed, very little English coinage circulated in the colonies. Gold was more easily acquired than silver, but the English crown of 5 shillings did trickle into British North America. In a table of coins printed in *Father Abraham's Almanack* for 1759, by Abraham Weatherwise of Philadelphia, the English denominations were listed and rated.

A Table of COINS, as they now pass in the following Places.									
	England.			Philadelphia.			N. York.		
	l.	s.	d.	l.	s.	d.	l.	s.	d.
English Sixpence,	0	0	6	0	0	9	0	0	9
English Crown,	0	5	0	0	7	6	0	8	0
French Crown,	0	5	0	0	7	6	0	8	0
Guinea,	1	1	0	1	14	0	1	16	0
Spanish Pistole,	0	16	0	1	7	0	1	9	0
French Pistole,	0	16	0	1	6	6	1	8	0
Moydore,	1	7	0	2	3	6	2	6	0
Johannes,	3	12	0	5	15	0	6	6	0
Half Johannes,	1	16	0	2	17	6	3	3	0
Doubleloon,	3	6	0	5	8	0	5	16	0
Spanish Dollar,				0	7	6	0	8	0
Pistereen,				0	1	4	0	1	6

N.B. All sorts of Spanish Silver are sold in London, by the Ounce, and often varies, but seldom or never exceeds 5s. 5d.

(Courtesy of the New-York Historical Society, New York City)

Portuguese settlement in the New World had to contend with undeveloped or undiscovered resources in contrast to the early Spanish success in discovering regions in which considerable civilization had been achieved and which were laden with large silver and gold deposits.

Portuguese America, discovered in 1500, first colonized by Portugal in 1532, and occupied by Spain from 1580 until 1640, was a very important source of supply of circulating gold coins imported by British colonies in North America. The discovery of gold in Minas Gerais in 1693 prompted a spate of minting activity. In 1695 the Bahia and Rio de Janeiro mints struck the first gold coins in Brazil.

Portugal and Brazil minted gold coins on a national or escudo standard; these had no mark of value, the weight and fineness being the same in the 8 escudos (Portugal) and the 12,800 reis (Brazil), the 4 escudos and the 6,400 reis, the 2 escudos and the 3,200 reis, the 1 escudo and the 1,600 reis, and the 1/2 escudo and the 800 reis; all bore the royal portrait and corresponded to Spanish denominations. The 8 escudo and the 12,800 reis were equal to the Spanish 8 escudo, and fractional coinage followed suit. The mother country and the colony also minted, on a colonial or decimal standard, value marked coins, the largest being the 20,000 reis issue of Brazil which bore the cross of Jerusalem.

Portuguese 8 escudos (12,800 reis) bearing the bust of Johannes V were called *johannes* or *joes*, the 4 escudos (6,400 reis) being commonly called



Brazil, 12,800 Reis 1732

half *joes*. A Portuguese law of November 29, 1732, provided for the discontinuation of the minting of the larger denomination in Brazil but the Rio and Minas Gerais mints did strike the coin in 1733, presumably because of communications problems. The half joe then replaced the joe, became the leading Brazilian gold coin to circulate in British West Indian areas, and was imported by American colonists and passed under the name of joe, creating unnecessary confusion. Another Portuguese coin to circulate in volume in the thirteen colonies was the *moidore*, a coin of

4,000 reis denomination. Legally 0.9167 fine, the actual fineness of Brazilian and Portuguese gold coins was between 0.912 and 0.914. The Pennsylvania 1751 rating for johannes (18 dwt. 8 gr.) was five pounds fifteen shillings, half johannes (9 dwt. 4 gr.) two pounds seventeen shillings sixpence, and moidores (6 dwt. 18 gr.) two pounds three shillings sixpence. Brazilian and Portuguese gold coins played a very active part in international commerce, flowing in and out of the major seaports in both the Eastern and Western Hemispheres.



Portugal, 4000 Reis 1710; 6400 Reis, 1739

A Massachusetts law effective after March 31, 1750, using the term double johannes for 8 escudos and single johannes for 4 escudos, included sterling values for the two coins, rated silver in Massachusetts currency at six shillings eightpence per ounce and Spanish "mill'd Pieces of Eight of full Weight" at six shillings, and provided additional ratings as follows:

A Guinea at twenty eight shillings; An Englifh Crown at fix Shillings and eight Pence: An half Crown at three shillings and four Pence: An Englifh Shilling at one Shilling and four Pence: An Englifh fixPence at eight Pence: A double Johannes, or Gold Coin of Portugal of the Value of Three Pounds twelve shillings Sterling, at four Pounds fifteen Shillings: A fingle Johannes of the Value of thirty fix Shillings Sterling, at forty eight Shillings: A Moidore at thirty fix shillings: A Pistole of full Weight at twenty two Shillings: Three Englifh Farthings for one Penny; and Englifh Half Pence in greater or lefs Numbers in Proportion.

During our colonial period, great maritime rivalry existed in the Medi-



Netherlands, Carolus d'or 1515-1555; Ottoman Empire, Altun 1703-1730; Netherlands, Ducat 1757

Mediterranean, resulting in a flow of coins to America from this area. The sequin was the English name for the standard Ottoman Turkish gold altun of the seventeenth and eighteenth centuries. Sequins circulated throughout the Ottoman Empire and were available in the ports on the Mediterranean. Struck in Constantinople, the sequin weighed approximately 2 dwt. 6 gr., and its multiples and fractions were in proportion. A similar piece was the Algerian sultani; like the altun, it was about the same weight as the European ducat. In various colonial rating lists, the term Barbary ducat was used to designate gold coins issued by Muslim countries in North Africa, and the term chequin, also checken, checkeen, or chequeen, was sometimes used for the Venetian ducat. In about the middle of the eighteenth century, Pennsylvania rated Arabian chequins (2 dwt. 3 gr.) at thirteen shillings sixpence and Dutch or German ducats (2 dwt. 4 gr.) at fourteen shillings; New York rated chequins (2 dwt. 4 gr.) at fourteen shillings sixpence in 1769.

Some of the German states were responsible for the minting of gold carolines and their halves and quarters, coins of about only 0.770 fineness. Carolines were rated in Pennsylvania on a least-weight basis of 6 dwt. 5 gr. at one pound fourteen shillings in 1751, and New York rated the same denomination weighing 6 dwt. 8 gr. at one pound eighteen shillings in 1769.



Cologne, Ducat 1724

*A TABLE of the Value
and Weight of Coins, as
they now pass in Pennsylv
vania.*

	Value.			Least
	£.	s.	d.	Weight
				dwt. gr.
E Ngl. Guineas at	1	14	0	5 6
French Guineas	1	13	6	5 5
Moidores - - -	2	3	6	6 18
Johannes's - - -	5	15	0	18 8
Half Johannes's -	2	17	6	9 4
Carolines - - -	1	14	0	6 5
Dutch or Ger. Ducat.	0	14	0	2 4
French milled Pistoles	1	6	6	4 4
Spanish Pistoles	1	7	0	4 6
Arabian Chequins -	0	13	6	2 3
Other Gold Coin, per				
Ounce - - -	6	5	0	
French Silver Crowns	0	7	6	17 6
Spanish milled Pieces				
of 8. - - -	0	7	6	17 6
Other good coined Span.				
Silver, per Ounce	0	8	6	

The Proportion of Gold to Silver, in
England is, as 1 : 1 : : 15 $\frac{1}{2}$

1 Ounce Troy of Gold (22 Car.)
is worth Sterling £. 3 17 8 $\frac{1}{2}$

1 Ounce Sterling Silver, 0 5 2

R. Saunders, *A Pocket Almanack for 1751*, printed by B. Franklin, Philadelphia, 1751 (Courtesy of the New-York Historical Society, New York City)



Mexico, 8 Reales 1772

On April 19, 1776, the Continental Congress appointed a committee of seven "to examine and ascertain the value of the several species of gold and silver coins, current in these colonies; and the proportions they ought to bear to Spanish milled dollars: . . ." The completed report of September 2, 1776 rated "Gold in Bullion" at seventeen dollars per troy ounce and "Sterling Alloy and Silver" at one dollar and one-ninth per ounce. The report valued denominations in terms of Spanish milled dollars:

	Weight		Value Dollars
	Dwt.	Gr.	
English guinea	5	6	$4\frac{2}{3}$
French guinea	5	5	$4\frac{5}{9}$
Johannes	18	0	16
Half johannes	9	0	8
Spanish pistole	4	8	$3\frac{2}{3}$
French pistole	4	4	$3\frac{1}{2}$
Moidore	6	18	6
English crown	—	—	$1\frac{1}{9}$
French crown	—	—	$1\frac{1}{9}$
English shilling	—	—	$\frac{2}{9}$
Spanish milled dollar			*1

*Continental money.

Fractions of gold coins were rated proportionately with the provision for a deduction of a twenty-ninth part of a dollar per grain on gold coins short of the specified weight and an advance at the same rate on gold coins exceeding the weight. The committee pointed out the fact that Spanish milled dollars were valued at different rates in the several states,

"whereby injustice may happen in some instances to the public, as well as to individuals, which ought to be remedied."

Obviously, the unsatisfactory mixture of circulating foreign coins did not disappear in 1776 or for many years after the United States of America had initiated a national coinage system. As an expediency until such time when the new country could fully supply its coinage requirements, many of the foreign coins in circulation were given legal tender status on a federal basis. Under the provisions of the foreign coin legal tender law of February 9, 1793 (effective July 1, 1793), gold coins "of their present standard" from Great Britain and Portugal were rated at one dollar for 27 gr. actual weight, and those from France, Spain, and the Spanish dominions at one dollar for 27 $\frac{2}{5}$ gr. actual weight. Spanish milled dollars were rated at one dollar for an actual weight not less than 17 dwt. 7 gr. each, and the French crowns at one dollar and ten cents for actual weight not less than 18 dwt. 17 gr. each. Subdivisions of these coins were rated proportionately. Except for the Spanish milled dollars and their divisions, time limitations during which the foreign coins could circulate were set at three years after the start of domestic gold and silver coinage under the Act of April 2, 1792, "establishing a Mint, and regulating the coins of the United States." The foreign legal tender law was extended and amended many times, and the circulation of legal tender foreign specie was not ended until February 21, 1857, over six decades after the establishment of the United States Mint.

A large number of foreign coins which had been circulating in the colonies continued to see service after the Revolution, whether or not

A TABLE of the Weight and Value of Coins as they pass in the respective States of the Union, with their Sterling and Federal Value.

Names of Coins.	Standard Weight.	Sterling Money of Great Britain.			N. Hamp. Massachus. R. Island, Connecticut Virginia.		New York & North Carolina		N. Jersey, Pennsylv. Delaware & Maryland		S. Carolina & Georgia.		Federal value				
		L.	s.	d.	L.	s.	d.	L.	s.	d.	L.	s.	d.	E.	D.	c.	m.
An English Guinea,	5 6	1	1	0	1	8	0	1	17	0	1	15	0	1	1	9	0
A French Guinea,	5 5	1	1	0	1	7	6	1	16	0	1	14	6	1	1	5	0
A Johannes,	18 0	3	12	0	4	16	0	6	8	0	6	0	0	4	0	0	0
An Half Johannes,	9 0	1	16	0	2	8	0	3	4	0	3	0	0	2	0	0	0
A Moidore,	6 18	1	7	0	1	16	0	2	8	0	2	5	0	1	8	0	0
A Doubloon,	16 21	3	6	0	4	8	0	5	16	0	5	12	6	3	10	0	0
A Spanish Pistole,	4 6	0	16	6	1	2	0	1	9	0	1	8	0	0	18	0	0
A French Pistole,	4 4	0	16	0	1	2	0	1	8	0	1	7	6	0	17	6	0
A French Crown,	19 0	0	5	0	0	6	8	0	8	9	0	8	4	0	5	0	0
A Dollar of Spain,	17 6	0	4	6	0	6	0	0	8	0	0	7	6	0	4	8	0
An English Shilling,	3 18	0	1	0	0	1	4	0	1	9	0	1	8	0	1	0	0
A Pistareen,	3 11	0	0	10	0	1	2	0	1	7	0	1	6	0	0	11	0

All other gold Coins, of equal Fineness, are valued at 89 Cents per Pennyweight, and all other silver Coins, of the same Fineness, at 111 Cents per Ounce.

(Courtesy of the Eric P. Newman Numismatic Education Society)

they were legal tender. Pistareens continued to pass for many years for twenty cents. Foreign coin assay was an annual Mint requirement by law. Published tables listed alien coin values and sometimes included the "standard" weights, which were brought up to date and therefore contrasted slightly with some of the earlier colonial ratings.

As a summation of the values of circulating foreign coins in the United States in federal money (dollars, cents and mills) immediately prior to the minting of our first regular domestic gold and silver issues, a table is reproduced from *Federal Money*, published by Samuel Sower in Philadelphia in 1793.

Additional selected denominations with indicated federal values from the same publication:

<i>Denomination</i>	<i>Value in federal money</i>
Florin or Gilder of the United Netherlands	\$.390
Rupee of Bengal	.555
Rix Dollar of Denmark	1.000
Rix Dollar of Sweden	1.000
Ruble of Russia	1.000
Mill-ree of Portugal	1.240
Tale of China	1.480
Pagoda of India	1.940
English Crown	1.110
English Shilling	.222
English Sixpence	.111
Half Pistareen	.100
The pound sterling of Great Britian	\$4.44
Pound of Ireland	4.10

CHAPTER 5

North American Colonial Coinages under the French Regime (1640–1763)

Walter Breen

Like the British, the French possessions in North America experienced a shortage of specie. While British Americans imported gold and silver coins on their own, however, their French counterparts sporadically received coinage directly from the homeland government. French governmental policy in this direction did not begin until many years after the founding of the colony, and it was not especially consistent.

Prior to the 1660's, coined money in Nouvelle France (Canada and Louisiana Territory) was as rare as it was irrelevant, animal pelts being the preferred medium of exchange among the *habitants* and the Indians. Later, occasions arose when specie was necessary, largely for purchasing from trading ships necessary provisions not locally obtainable. Official policy (mercantilism) was deliberately calculated to minimize the supply of specie, lest precious metal leave French jurisdiction in favor of English, Dutch, Spanish, etc. Colonies were thus forced to remain as nearly as possible totally dependent on the home government, to trade as little as possible (preferably not at all) with foreign ships, and to remain as nearly as possible on a completely barter economy. Local coinage was regarded as infringement on royal prerogative; on the rare occasion when coin was furnished to colonies for local needs, it was of a kind not elsewhere negotiable so as to discourage trade with foreigners.

Louis XIV's attempt at providing a quantity of silver coins in 1670 resulted only in their being hoarded, despite upward and downward revaluations. All later attempts to ease the colonists' plight had to do with copper or billon coins. Mysteriously, though the coppers were of good weight, they did not circulate, and the enormous billon issues disappeared, so that from 1685 through 1763, Canadian and Louisianan authorities had to rely increasingly on card money as an emergency circulating medium.

Fundamental to an understanding of the following material is familiarity with the French monetary system, mints and minting practices of the period—a source of confusion primarily because no single reference work covers all of them.

Basic French monetary units were these:

1 Livre (officially livre tournois) = 20 Sols. Abbreviation: LT. A silver coin of 1 livre was likely to be of shilling or quarter dollar size.

1 Sol = 12 Deniers. Abbreviation: S. Sometimes as low as 9, sometimes as high as 15, but always tending to return to the norm of 12. A coin of 1 sol was usually of copper or billon, commonly of sovereign or U.S. nickel size, occasionally a little larger or smaller.

1 Denier (originally denier tournois). Abbreviation: d. A unit of account (generically 1/240 livre or 1/12 sol) represented, rarely, by tiny copper coins.

The parallel to the old British denominations is of ultimately mediaeval origin. The British pound was originally libra = 20 shillings; livre is derived from libra. As the shilling was divided into 12 pence (d., originally denarii), so the sol = 12 deniers. French and Anglo-Gallic counterparts of mediaeval English pennies were precisely deniers. Later divergences in value stemmed from official devaluations over the centuries on both sides of the channel.

Other French monetary names were less precise:

The Écu, created by Edict of June 1640, was a heavy silver coin of dollar or crown size = 3 LT = 60 sols. Changed to 4 LT in 1663, 3.1 in 1690, and by successive royal edicts inflating to 5 LT in 1709, it reached its high of 9 LT under John Law (1720), being reduced to 7½ LT, later still to 6. In practice each coin was valued by weight. Its name (= "shield") derived from the prominent Bourbon arms on the reverse.

The louis d'or was a generic name for any gold coin with a royal portrait. In practice 1 louis d'or = 10 LT, a double louis = 20, a petit louis = 5, though there were variations. The coins did not indicate their denominations because in trade they were valued solely by weight, as were the silver.

The louis d'argent meant any silver coin with a royal portrait, commonly one valued at 1 or 2 LT; the petit louis might be 1 LT or 1/2 LT.

A sou was any small billon piece from 6 to 24 deniers.

All these coins were tariffed officially, rated to the marc. This was a weight = 244.753 grams, though the name was occasionally used to denote a gold piece of 10 écus. Royal edicts and the decrees of the Conseil d'Estat routinely authorized coins of a certain total weight in marcs to be struck in gold or silver of specified fineness, weight and tolerance. The 15 sols of 1670, for example, was a coin tariffed at 35 to the marc weighing 1/35 of 244.753 grams or 6.99 grams (108.13 grains). Knowledge of these quantitative relationships has enabled discovery of authorized mintage figures for many issues.

Blanks were supposed to be cut out from strips which had been rolled flat from ingots; cast blanks were forbidden. Edges received reeding or

other ornamentation by rolling blanks edgewise under pressure between parallel bars (the Castaing machine) bearing the ornaments; this at once imparted roundness and discouraged clipping or shaving edges. Designs were stamped onto the blanks by screw press, a method which replaced the hammer in the 1640's. Designs were imparted to dies by a combination of methods: large embossed-portrait puncheons, small individual punches for numerals, letters, symbols, etc. There were some 30 separate mints in operation in France; when the Conseil d'Estat ordered a new emission of coin in the King's name, copies of drawings of the intended designs were furnished to each mintmaster with the necessary physical specifications.

For various purposes (e.g., the annual trials of the pyx, or dealing with complaints of short weight or deficient fineness), it was believed necessary to mark every French coin to identify its mint site and mintmaster's and engraver's identity. These marks, varying from time to time, included a letter or symbol for each mint and a personal symbol or *différent* for each master (obv.) and each engraver (rev.). In rare instances, a succession of mintmasters would continue to use the same *différent*. Normally a change of personnel produced a change of *différents*.

Following is a type catalogue of all the coins authorized to pass current in Colonial America under the Bourbons, including some heretofore apparently unrecognized.

I. The Hammered Sols Marqués (Countermark of 1640)

By edict of Louis XIII, June 1640, all old billon douzains (= 1 sol or 12 deniers) were to be recalled and countermarked with a fleur de lys in a beaded oval, thence to be shipped to Nouvelle France to be there current at 15 deniers each. They were thereafter referred to as sols de quinze (= 15 deniers), later as sols marqués (counterstamped). In Louis XIV's Edict of Nov. 24, 1672, these coins are specifically mentioned as then current at 20 deniers each in Canada. The majority of billon coins so countermarked were douzains of 1618.



Berry, pl. LXIII, 2

Obv. Crowned Bourbon arms flanked by L's. + LVDOVICVS·XIII·D·G·FRAN·ET·NAV·REX·1618

Rev. Cross échancrée (similar to cross fourchée but the ends are blunt). In upper left and lower right angles, crowns, respectively pointing NW and SE; in other angles, L's. SIT·NOMEN·DOMINI·BENEDICTVM·A· (= Paris mintmark) Legend begins at 6:30 so that the mintmark is at 6:00.

Billon 0.239 fine, diam. about 26 mm, wt. 112 to the marc = 2.439 grams or 40.48 grains each. Ciani 1703; not in Hoffmann; Berry LXIII, 2. Design attributed to Varin, though similar ones recur on earlier billon coins (1595 and before).



On a Carlino of Avignon, Clement VIII (1592–1608)

1. COUNTERMARK. Fleur de lys in relief, its outer boundary closely paralleled by inner border; in oval of about 28 beads (variations exist); vertical axis about 4mm, horizontal about 2mm. Rare. Usually found on illegible billon pieces; rarely does the 1618 date show. Pridmore III, p. 10, illustrates it on a 1595 douzain.

These countermarked coins were known unofficially as monnaies grises ("gray coins" obviously from tarnish—Berry), French sole marks, sou marks and black dogs. Ciani 1709, p. 379; Berry, p. 517. Similar pieces dated 1624 are essays and are not reported countermarked. We have seen no countermarks on sixains (6-deniers pieces of 1625, same type and mint, half the weight). The 1641 douzains (Ciani 1710), though cited by Willey (CNJ 1969, pp. 367ff.; 1970, p. 147) are of doubtful relevance, because they were struck after the 1640 edict had taken effect; they have similar designs but the lys in the oval is in the die above the crown, and the reverse reads + SIT·NOMEN·DNI·BENEDICTVM·1641. The above countermarked coins are called hammered sols because they were struck by the hammer method prior to introduction of the screw press. Breton confused these 1640 countermarked sols (which he apparently had never seen) with the 1670 copper pattern Double, as have most other writers on

Canadian numismatics prior to Willey; Breton's source, Zay, did not, realizing that the legend *DOUBLE DE L'AMERIQUE FRANCOIS* could only refer to a 2-denier piece, never one of 12 or 15 deniers.

Pridmore cites a letter of Antigua's Governor Codrington, July 13, 1691, and an Antigua act of 1699 referring to these coins both as "black doggs" and as "French Sols marks" or "French Sous marks" in valuing them at 1½d apiece—a common value until the 1790's. We may conjecture that these were the coins alluded to by the Connecticut legislature May 25, 1721 (Crosby, p. 203) attempting to revalue them at 2d apiece. Pridmore quotes a Virgin Islands and Tortola act passed in Assembly Feb. 3, 1801, but disallowed by Order in Council August 16, 1802, which would have authorized countermarking all black doggs (along with various fractional silver coins and cut Spanish fractions) and made black doggs legal tender at then current value for up to 10% of any transaction. In June 1818, black doggs were current in St. Kitts at 72 to the dollar; in 1822, a Dominica Treasurer's report cited "dogs" as current at 1½d. As of 1798 they were withdrawn in Tobago, being reckoned at 6 black dogs per bitt. French-speaking areas referred to all such billon coins as noirs (= black coins). These acts indicate that the old hammered sols, later mousquetaires, sous marqués of 1738–64, etc., passed similarly over the decades indiscriminately, the same names and values continuing to apply. We may conclude, too, that when these coins disappeared in Canada and Louisiana, being replaced by card money, they found their way to the West Indies, being there a preferred medium of exchange for a further century.

II. The Milled Sols of 1658

In 1658 a new emission of billon douzains and sixains (pieces of 12 and 6 deniers) appeared in Paris, only to be recalled in 1662 and shipped to Canada, where they were valued at 24 and 12 deniers respectively, by order of the Conseil d'Etat (A. Shortt, *Documents Relating to Canadian Currency*, p. 17, note 2). In 1667 they were revalued at 20 and 10 deniers, being thereafter referred to as sols marqués, circulating at par with the old hammered sols. Shortt (pp. 17, 19, 21) says that certain Province of Quebec officials briefly agreed to buy the coins in any amount at the old 24 deniers rate, to protect the poorer *habitants* from loss by devaluation of the coins. Nevertheless, in 1679 douzains of 1658 were again reduced in Nouvelle France to 12 deniers apiece, their original French valuation, being promptly raised in 1680 to 16. They shared the earlier name of sol marqué, but it is unknown if they were also called monnaie grise. They were recalled in 1692 for overstriking with the new devices of that year,

along with (presumably) the remaining earlier sols; Ciani, p. 439, shows a mediaeval gros tournois similarly overstruck. Pridmore ignores them, which indicates that they never reached the West Indies in any quantity. The douzain and sixain of 1658 are described similarly except for size and weight:

- Obv. Crowned Bourbon arms flanked by crowned L's. LVD·XIII·D·G·FR·A·ET·NAV·REX·1658· Legend begins about 1:00, placing the Paris mintmark below the shield point.
 Rev. Cross échancrée, lys in all four angles. SIT·NOMEN·DOMINI·BENEDICTVM· Billon 0.235 fine.



Hoffmann, pl. CIII, 216

2. DOUZAIN. Diameter about 24mm, 192 to the marc = 1.274 grams (19.66 grains). (Berry says 24 grains, which probably meant he used a randomly heavier specimen.) Later dates through 1691 are not relevant. Ciani 1976, Hoffmann 216, Leblanc, p. 388, where it is called a "piece de 6 blancs." Extremely rare, called milled douzains.



Hoffmann, pl. CIII, 217

3. SIXAIN. Similar but smaller letters; diameter about 16mm. or a little smaller; 384 to the marc = 0.637 gram (9.83 grains). Ciani 1978; Hoffmann 217. No specimen has been located in America. Berry confused this issue with the double of 1670. This denomination was ignored in the 1670 edict; most probably none were then to be found. Probably called milled sixains.

III. The Silver Issue of 1670

On behalf of the Compagnie des Indes Occidentales, a Royal Edict of February 19, 1670, authorized the emission of silver pieces of 15 and 5 sols, bearing a royal portrait and arms with distinctive legend. They were to bear date 1670 and were to be current in Canada, Acadia, and in all French Caribbean colonies at the same valuations. The orders of the Conseil d'Estat also specified a grand louis d'argent of 3 LT, but this is not known to have been struck; it would have been nearly dollar-sized, presumably with the same inscriptions as the 15 and 5 sols coins (Zay, *Histoire*, p. 44). The same order also called for 5,000 livres (30,000 pieces) of the denomination of double (i.e. 2 deniers tournois), to be struck at the Nantes mint (mintmark T) only, of the same design as the unique Paris (mintmark A) pattern, reading DOVBLE DE LA MERIQVE FRANÇOISE. There is no record of such a striking, especially as the Nantes mint records were destroyed by fire in 1700 (Zay, p. 45). No specimen mintmarked T is recorded. The reason for the non-issue of the Nantes mint coins is unknown. The misspelling LA MERIQVE for L'AMERIQUE is not decisive; without change of layout the legend would have been easily amended to DOVBLE / DES / COLONIES / FRANÇOISES.



4. LOUIS DE QUINZE SOLS.

- Obv. Draped laureate bust right *a la mèche longue* (older head with long lovelocks). Above the head, mintmaster's *différent*, a small soleil or sun face, honoring the king but identifying Pierre Cheval, Paris mintmaster. LVD·XIII·D·G (soleil) FR·ET NAV·REX Pellet below final I, the secret mark for the Paris mint.
- Rev. Crowned arms, A below (Paris mintmark). GLORIAM REGNI TVI DICENT 1670 and engraver's *différent*, a tour (small castle or rook), rhyming mark of Jean Baptiste du Four, chief engraver of the Paris Monnaie and the probable designer. (Crosby, p. 133, was unable to identify the latter symbol on either of the two worn 5 sols pieces available to him.)

Silver, fineness .9167. Edge plain on all seen, though V. Guilloteux, *Monnaies Françaises*, calls for feuilletée (leaf-ornamented as on Spanish dollars). Diameter varies slightly from about 27mm. to 28, thickness about 1 mm., authorized weight 35 to the marc = 6.99 grams (108.13 grains); observed weight about 105 grains. Leblanc (1703), p. 388; Berry, p. 549; Hoffmann 100, pl. XCVI; Zay, pp. 41–43; Ciani 2064; Breton 501; LeRoux 250; Crosby, p. 134; Guilloteux 1; Charlton 1a; Mazard 1. 40,000 were authorized to be struck. About 12 traced; two minor varieties—(a) curl away from X and extending beyond it; F on curl; stop after TVI—ex W.W.C. Wilson coll.; (b) end of curl almost touches right tip of X, F distant from curl, no stop after TVI—ANS and others, less rare. Many electrotypes exist.



5. PETIT LOUIS DE 5 SOLS. Obverse and reverse similar to 15 sols.

Silver, same fineness, plain edge, diam. 20 to 21 mm., thickness about 2/3 mm., weight 105 to the marc or 2.33 grams (35.97 grains), observed weight about 35 grains. Crosby, pl. III, 5 and p. 135; LeRoux 251; Breton 502; Ciani 2065; Hoffmann 101; Guilloteux 2; Charlton 2; Carmichael 1; Mazard 2; other references included under the 15 sols. A total of 200,000 authorized struck from at least 5 obverse and 3 reverse dies, differing slightly in positions of letters. The quantity shipped to Canada is not known; the coins were paid out at the rate of 40 sols per beaver skin, but the recipients often hoarded the coins. Ignorant of Gresham's Law, the Conseil d'Etat on Nov. 18, 1672, raised the values of the 15 and 5 sols coins to 20 sols (1 livre) and 6 sols 8 deniers (1/3 livre) each, which meant that even the few in circulation disappeared at once. On Dec. 2, 1680, the Conseil restored the coins to their original values, without effect. The *habitants*, in the rare transactions where silver was needed, preferentially circulated worn Spanish and Mexican silver and occasional Boston Shillings (the Pine and Oak Tree coinage), doubtless aided by the coincidence that a Boston sixpence weighed the same as a 5 sols piece, for which reason we may conclude that the Boston Shillings would have been accepted at 10 sols. The Castine (Maine) Deposit of 1704, containing a mixture of foreign and Massachusetts Bay silver, and found in a location

known to have been accessible both to Bay Colony people and *habitants*, supports such conjectures. It is even possible that between 1670 and 1690 the Boston Shillings, marked XII, may have passed at 12 sols each.



6. ESSAI DOUBLE DENIER.

Obv. Crowned L divides date 16 70; Paris mintmark A below. LVDOVICVS·XIIII·D·GR·FRAN·ET·NAV·REX Style of crown similar to that on 5 sols.

Rev. In 4 lines, DOVBLE / DE·LA / MERIQVE· / FRANÇOISE Mintmark A below, lys at each side, a third below it. Dented borders as on the silver piece.

Copper, plain edge. Diameter 23.5 mm. Mazard gives the weight as 6.8 grams (105.14 grains), which corresponds to a standard of 35 to the marc, like the 15 sols. Breton 503; Ciani 2066; Hoffmann 250, pl. CIV (in both latter as "Liard du Canada"—an error, as a liard is a 3-deniers piece); Zay, p. 41; LeRoux 252; Crosby, p. 134, represented by an electrotype; V. G. 3 (also as a "liard"); Mazard 3. Presumed unique, although a second is rumored to exist. Breton mentions two, that detailed below plus one in the Ulex coll., which latter piece is believed to be one of the electrotypes. Coll. Mrs. R. Henry Norweb ex J. J. Ford Jr. by trade (1954) ex Wayte Raymond ex Burdette G. Johnson ex Virgil Brand ex Count Ferrari, who had traded it from the Bibliothèque Nationale.

By the early 1680's many Spanish dollars had begun to circulate among trappers, local merchants, and officials—largely for paying the military garrison. As they were lighter than French écus, they were preferentially used, and the écus were hoarded. Many Spanish dollars were lightweight, some counterfeit. Accordingly on Jan. 13, 1683, the Governor-General ordered that Spanish dollars be officially countermarked to establish stable values: (a) one fleur de lys on any full weight dollar (27.04 grams or 416 grains) to pass at 4 LT; (b) lys and I on a dollar up to 6.25% light (25.35 grams or 390 grains) to pass at 3 LT 15 sols; (c) lys and II on a dollar up to 12.5% light (23.66 grams or 364 grains) to pass at 3 LT 10

sols; (d) lys and III on a dollar up to 18.75% light (21.97 grams or 338 grains) to pass at 3 LT 5 sols; (e) lys and IIII on a dollar up to 25% light (20.28 grams or 312 grains) to pass at 3 LT. Anything lighter was to be remelted. Proportional standards and countermarks were to be used on Spanish fractions.

There is no evidence that any Spanish dollars or their fractions were so countermarked. In all probability the Act was dead from the day of its passage. There is a parallel in the NE countermarking authorized on Oct. 8, 1672, in Boston for Spanish dollars (Crosby, p. 80), a procedure which was also never carried out.

Delay in arrival of a shipment of Spanish dollars for paying the military garrison resulted in the first of many issues of card money in 1685; from then on, card money represented the bulk of the circulating medium above 7 sols 6 deniers valuation in Canada and Louisiana, successive issues being recalled and replaced, surviving examples being very rare.

IV. Recoinage of 1692

By the early 1690's the monetary picture was completely confused. Coins which were centuries old, often illegible, circulated at par with newer ones; filthy copper liards and tissue-thin old sols of many sizes and weights passed indiscriminately at 12 deniers each. Accordingly, in 1692, Louis XIV ordered a coinage reform, specifying among other things that all earlier billon coins be recalled and overstruck with new designs, the re-coined sous to pass at 15 deniers each both in France and Nouvelle France. Ciani 1980 (p. 439), pictures a mediaeval gros tournois so overstruck, but the principal undertypes were 1618 and presumably 1658 douzains. In 1705, Intendant Raudot (Shortt, pp. 47-8) ordered that all older billon coins, whatever their earlier valuation, would pass at 15 deniers each, which they did until 1720.



7. RECOINED SOLS DE QUINZE DENIERS. The re-coined sols were overstruck with the following dies:

- Obv. Greek cross formed of eight L's, their legs overlapping, crowns at ends, mintmark in center, lys in each angle. Beginning at 1:00, LVD· / XIII / D·G·FR· / ETN·R· divided by crowns. Mintmarks M and N claimed.
- Rev. Crowned arms bearing three lys. SIT·NOMEN·DOMINI·BENEDICTVM· 1692 (or 1693).

Billon weight that of the older sols on which overstruck. No data on quantities, other mintmarks, or dates. Ciani 1980, Hoffmann 225 (listed as overstruck on a blanc of Charles VI). Also without undertypes (Ciani 1979, Hoffmann 218). No data on rarity.

V. The Mousquetaires of 1709-13

The supply of the recoinced billon coins dwindled and there was no way to make change for card money except in worn Spanish fractions and any copper or billon available. Successive Governors-General and Intendants petitioned the Crown for more billon sols. Eventually their entreaties resulted in the Edict of September 1709, authorizing coinage of billon pieces of 30 and 15 deniers, to pass current in France and Nouvelle France (except in Alsace where they should pass at 33 and 16½ deniers respectively). This Act had gone largely unnoticed until published by J. Lafaurie, "Les Pièces de xxx et xv deniers frappées en 1709-1713," *BSFN* 1968, pp. 279-83.

Later known as "Old Sols" and (for reasons to be conjectured below) as "mousquetaires," these coins represent the only successful attempt by Louis XIV to create a circulating medium for his American colonies. Just how successful can be judged by successive petitions by Canadian authorities for more of them as late as 1738. Only exhaustion of available stocks induced Louis XV to authorize the billon sols marqués of 1738-64 as a substitute.



8. DOUBLE SOL DE TRENTE DENIERS or MOUSQUETAIRE.

- Obv. Addorsed Roman L's, crown above upright, lys at either side, a third below. LVD·XIIII·FR·ET·NAV·REX· (date) (pellet, on Lyon; mintmaster's *différent* on Metz).
- Rev. Cross cléchée (voided Greek cross formed of four sans-serif L's by closing ends. Three roundels (2+1) end each arm. Lys in each angle. PIECE·DE·XXX (pellet, on Lyon coins; engraver's *différent*, on Metz) DENIERS· Individual punches for all elements; dentilated borders.

Billon, lightly silvered, .209 fine, 100 to the marc = 2.448 grams (37.8 grains).

Hoffmann 222, pl. CIII; Zay, p. 66; Ciani 1984; Guilloteux 7. (96,000,000 authorized from 1709 to 1713 from both Lyon and Metz mints.)

Lyon Mint. Mintmark D. No *différents*, 1709–12. 50,000,000 authorized 1709–13.

1709. Struck only at year's end and possibly early 1710. None traced, known from mention in Alfred Page's June 1931 catalogue of French colonial coins.
1710. (About 16,464,650 struck) Small or large roundels. Very scarce.
1710. Piefort (2.40 mm.). Ciani 1985. Coll. J. J. Ford.
1711. (4,200,000) About as rare as 1710.
1712. Rarer than 1710–11. (About 29,300,000, 1712–13, possibly including some 1711's).
- 1713 I. No *différents*. About as rare as 1712.
- 1713 II. *Différent* a perfect molet of 5, voided (spur rowel in shape of 5-pointed star), following date. Two seen.

Metz Mint. Mintmark AA. 46,000,000 authorized 1709–13, possibly only 33,874,000 coined. Stippling in cross. Obv. *différent* 1709–13 I: grénade (pomegranate, irregular globe with 3 leaf-like projections above). 1713 II. molet of 5. Rev. on all: hermine (ermine tail or cross fléchée): cross with elongated tail split into three, after XXX or XV.

1709. Only seven traced to date. (Possibly 459,000 coined)
1710. Very scarce. (Possibly 12,330,000 including some dated 1709)
1710. Silver piefort. Banque du Canada. Hoffmann 223.
1711. About as rare as 1709. (Possibly 7,430,000)
1712. One seen, another reported. (Possibly 6,425,000)
- 1713 I. Grénade after date. Three seen.
- 1713 II. Molet after date. Rarer than 1710, but less rare than other dates. (Possibly 7,230,000 of both types)

Counterfeit. Date 1711, mintmark S (!), no *différents*, letters engraved.

Billon. ANS, ex Norweb, possibly ex Tennant.



Hoffmann, pl. CIII, 224

9. SOL DE QUINZE DENIERS or DEMI MOUSQUETAIRE.

Obv. and Rev. same as XXX deniers except the XV; mintmark AA only, for Metz. Ciani 1986. 8,000,000 authorized 1711–13, possibly only 6,790,000 coined.

Billon, same fineness, usually too poorly preserved for silvering to show. 200 to the marc = 1.224 grams (18.9 grains).

1711. (3,200,000 authorized May 1711, possibly as few as 1,160,000 coined) One located. Banque du Canada.

1712/11. One located.

1712. Normal date. Not over a dozen located (890,000)

1713 I. Grénade after date. Not over two dozen located.

1713 II. Rosette or cinquefoil after date, rather than molet. Four or five located (4,740,000 of both types, which may include some dated 1712)

Wiley says that these coins were mostly shipped to Nouvelle France “after 1715.” The coins were revalued at 36 and 18 deniers respectively in 1719, only to soar to 60 and 30 under John Law (1720), then back to 45 and 22½ and soon thereafter to 36 and 18, down to 27 and 13½ in 1724, further to 24 and 12 in 1732, etc. The devaluation of August 1738 to 18 and 9 deniers seems not to have had effect in Canada, as these coins were placed at par with revalued new sols marqués as of Jan. 30, 1744, per orders of Gov.-General Beauharnois and Intendant Hocquart.

Most of these coins were recalled and countermarked in 1763. They were universally known as old sols after the arrival of the new ones of 1738. They early acquired the sobriquet of mousquetaires (perhaps someone in France jocosely named the coins after their intended recipients, Canadian *habitants*, who had muskets for providing beaver, pelts, and meat).

VI. The Perpignan Copper of 1717

Acting in the name of the child king Louis XV, the Duc d’Orléans as Regent issued an edict in December 1716 (quoted in Zay) authorizing



(a)



(b)



Cast



Cast



some 150,000 marcs of copper coins of 12 and 6 deniers to be struck for Nouvelle France and Acadia, at the Perpignan mint, the mint being notified by the Conseil d'Etat as of March 9, 1717, replacing the ineffective edict of October 1709 which would have provided some 2,000,000 marcs of copper 6 and 3 deniers coins.

10. DOUBLE SOL DE 12 DENIERS. (Not called a *douzain* because it was not struck in billon.)

Obv. Child bust right of Louis XV. LVD·XV·D·G·FR·ET·NAV·REX· (mintmaster's *différent*, a coquille or cockleshell for Christophe Bordeau).

Rev. XII / DENIERS / COLONIES / (engraver's *différent*, heart in flames, for Pierre Daquinot) 1717 / Q (Perpignan mintmark).

Copper, dentilated borders. 29–30 mm., thickness 2 mm., 20 to the marc = 12.236 grams (188.8 grains). Zay 4, p. 48; Hoffmann 81, pl. CXII ("coll. Fabre"); LeRoux 252b; Breton 504; Craig 99:2; Mazard 4. (1,500,000 authorized) Two minor varieties: (a) Stops after LVD· and REX· Dies aligned ↑↑ ANS ex Norweb, possibly others. (b) No stops after LVD or REX Dies aligned ↓↓ ANS ex Norweb, Tennant (possibly Ciani 2151). Both on brassy flans showing splits.

Cast counterfeit, from re-engraved molds: similar, but devices and letters in excessively low relief; letters skeletal, all thick elements hollow with raised rims; copper reddish and wholly unlike the genuine.

11. SOL DE 6 DENIERS. (Not called a *sixain* because it was not struck in billon.)

Obv. As the 12 deniers but smaller.

Rev. As the 12 deniers, but *différent* left of mintmark; VI, not XII.

Copper (similar fabric to 12 deniers), dentilated borders, plain edge, 24 mm., thickness 1 mm.; 40 to the marc = 6.118 grams (94.4 grains), Zay 5 (p. 48); Breton 505; LeRoux 252c; Guilloteux 10; Craig 99:1; Mazard 3; 3,000,000 authorized. ANS ex Norweb ex Tennant; two others are rumored to exist. Willey mentions a similar coin dated 1720.

A cast counterfeit identical to that described above is in the ANS.

LeRoux cites Sulte (in *Histoire des Canadiens-Français*) as mentioning the existence of a gold louis d'or of 40 livres; this may be a pattern and may not bear the Q mintmark. No silver or gold denomination was mentioned in the 1716 Edict or the 1717 Order of Conseil d'Etat.

Known survivors are random remnants of a completely abortive attempt; the mintmaster surely rejected the coins as unfit for circulation. The edict of June 1721 authorizing colonial coppers specified the "wretched quality" of the Perpignan copper as the reason the 1717 order had not gone into effect. By an interesting coincidence, Sir John Craig (*The Mint*, p. 221) cites the same cause as accounting for Sir Isaac Newton's abandoning the attempt to coin Queen Anne halfpence and farthings, 1713-14. The reason for the choice of Perpignan is conjectured to be its proximity to the Mediterranean port of entry for nearly 41 tons of copper earmarked for this coinage, and for shipment of the coins to Nouvelle France and Acadia via Gibraltar.

VII. The John Law Issues of 1720

John Law (b. Edinburgh, 1681) devised a scheme for creating wealth by issuing paper fiat currency, as well as founding a bank to supervise its issue, and companies trading in "Mississippi" (i.e., Acadian area) and "East India" (various oriental areas); by the profits anticipated from these enterprises, the currency would be backed and the national debt paid off. He first offered this scheme to King Vittorio Amadeo of Sardinia, only to be rebuffed, but in 1716 he managed to obtain the favor of the very same Duc d'Orléans who had promulgated the mousquetaires edict, and Law set up his bank under the Duc's protection, with the approval of the entire ministry. Ducs, comtes and lesser nobles stood in line to buy shares of stock in his enterprise and the price soared. In 1718 Law's bank was renamed a "royal" bank, i.e., the Crown shared in some way in guaranteeing the bank's investments. The shares climbed to over 20 times their original paper face value, being theoretically worth in total some 80 times the amount of all metallic currency in France by 1719. In 1720, the companies of adventurers failed to bring in the anticipated profits. People now began to realize that there was not enough real estate or other property in all of France to pay off the notes, and the "bubble" burst. Law was banished, dying a pauper in Venice in 1729. It is beyond the scope of this study to analyze the Law schemes in detail; for our purposes, it is significant that Law, as director of the mints, ordered certain coins to be shipped to the colonies, consisting apparently of only the following.

12. DOUBLE LOUIS D'OR DE 40 LIVRES AUX DEUX L COURONNÉES.

Obv. Child bust right, long locks, 1720 below, LVD·XV·D·G·

FR·ET·NAV·REX (*différent* a renard or running fox).

Rev. Adorsed L's crowned, lys on either side, a 3rd below, as on the mousquetaires; mintmark A (Paris) below third lys. CHRISTUS REGNAT VINCIT IMPERAT ("Christ rules, conquers, reigns", from Easter Lauds, a battle cry of the First Crusade) (*différent* cinquefoil).

Gold, 29mm., 19.5 grams (300.9 grains). Royal Edict, Sept. 1720. Friedberg 99:199a, Craig 91:60. Exceedingly rare. Beware of plain edge restrikes with full border beads and a narrow space outside of them (seen to date in silver but may exist in gold).



LeRoux, 254b

13. LOUIS D'OR DE 20 LIVRES AUX DEUX L COURONNÉES. As the preceding. Gold. 22mm., 9.75 grams (150.5 grains). 1720 A (later dates are not relevant). LeRoux 254b, Friedberg 99:200, Craig 91:59, Willey 63 (CNJ 1960, pp. 322ff.) Same comments on restrikes as above. Of the highest rarity.



Chapman, December 7-17, 1921 (Jenks Coll.), 5316

14. PETIT LOUIS D'OR DE 10 LIVRES AUX DEUX L COURONNÉES. As the preceding. Gold, 17 mm., 4.9 grams (75.2 grains). 1720 A. Jenks 5316 (1921), Friedberg 99:201, Craig 91:58. One was in the Brand

estate, probably the Jenks coin. Same comment on restrikes as above, no. 12. Of the highest rarity.



15. LIVRE AUX HUIT L (Domestic issue, Colonial relevance doubtful).

Obv. Similar but bust in armor, 1720 below; renard after REX.

Rev. Cross of 8 L's (4 adjoined pairs, with legs overlapping), 4 crowns at feet, 4 lys in angles, the mintmark in the center. CHRS. REGN: VINC. IMP. (*différent*)

Silver. Edge reeded with transverse line through all reeds. 27mm. The ANS example (1720 A) weighs 8.06 grams (124.4 grains). Reported from mints A (Paris), L (Bayonne) and V (Troyes), but others probably exist. Hoffmann 33, pl. CIX, Ciani 2136, LeRoux 254c, Jenks 5317, Willey 61. This is the coin most often sold as an "unlisted Canadian 20 Sols." Scarce only, relevance doubtful.



Vinchon, February 22-4, 1971, 619

16. LIVRE AUX DEUX L COURONNEES, "LIVRE DE LA COMPAGNIE DES INDES."

Obv. Armored bust, renard below, no date; same legend.

Rev. Adjoined L's, crowned, 3 lys, as on mousquetaires, mintmark A. SIT·NOMEN·DOMINI·BENEDICTUM (rosette) 1720.

Silver. Weight about as preceding (no specimen examined). Ciani 2137; Craig 100:8; Vinchon auction, February 22–4, 1971, lot 619. Authorized by the Edict of December 1719. Exceedingly rare.

17. PETIT LOUIS D' ARGENT or DEMI-LIVRE DE 10 SOLS AUX HUIT L (Dubious). Obv. and Rev. as Livre aux huit L above. Diam. 20mm.; weight about 4 grams (62 grains); 1720 A reported only. Craig 90:27. Ex. rare.



18. DEMI-LIVRE AUX DEUX L COURONNÉES, called DEMI-LIVRE DE LA COMPAGNIE DES INDES. Obv. and Rev. as Livre aux deux L couronnées above. Renard below bust.

Date 1720, mintmark A (Paris) only.

Silver, 21 mm., edge as on livre; weight of ANS example, 3.67 grams (56.6 grains). Hoffmann 84, pl. CXII; Ciani 2138; Le Roux 254d; Guilloteux 11 (as "20 Sols"!); Willey 61. Scarce.



19. SOL DE 12 DENIERS.

Obv. Child bust r., LVDOVICVS XV DEI GRATIA (renard)

Rev. Crowned arms, A below, FRANCIAE ET NAVARRAE REX 1719 (or 1720), cinquefoil.

Copper, plain edge, diam. variable but averages around 19mm.; weight 11.7 to 12 grams (181 to 185 grains). Hoffmann 71, pl. CX; Craig 89:3. Mazard (p. 19, note 53) identifies these as the coins alluded to in a letter from the Conseil de Marine to Governor-General Beauharnois, specifying that by order of John Law some 40,000 livres (800,000 pieces) would be shipped to Canada. If this shipment was made, the coins suffered the same fate as the 1721-22 Rochelle Sols. They are only scarce in European collections, generally found well worn; they have not turned up in Canadian or Colonial American hoards or non-collector accumulations. They are, of course, the regular domestic type, important here only because of the massive shipment ordered by Law. Dates 1721-23 are not relevant to this study.



20. DEMI-SOL DE 6 DENIERS. (Relevance doubtful) As the preceding, but smaller.

Copper, about 25 mm. ANS's best example weighs 5.70 grams (88 grains). Dates range from 1719 to 1723, but only 1719-20 are of possible relevance; even these are dubious because this denomination was not mentioned in the above letter. ANS has 1719 AA and 1720 A and BB.



21. LIARD DE 3 DENIERS. (Relevance doubtful) As the preceding, but still smaller.

Copper, about 20 mm. ANS's choicest example weighs 2.98 grams (46 grains). Dates 1720-22, with only 1720 being potentially relevant. ANS has 1720 BB and Adorsed C's (Strasbourg and Besançon, respectively);

others probable. Relevance is questionable for the same reason as that of the preceding coin.

VIII. The Rochelle Sols

After Law's downfall, authorities continued to receive petitions for small change from Nouvelle France. For reasons unknown, instead of ordering more billon coins of the mousquetaire type, they substituted a copper coinage. A Royal Edict of June 1721 authorized the mintage of 150,000 marcs of coppers for Canada and Louisiana: double sols of 18 deniers at 20 to the marc (188.8 grains), and sols of 9 deniers and demi-sols of 4½ deniers at proportionate weights. They were explicitly struck to substitute for the 1717 Perpignan issue, 30,000 marcs each from the Rouen (B) and Bordeaux (K) mints, 50,000 marcs from La Rochelle (H), 40,000 from Nantes (T). For reasons unknown, only 9 denier pieces were made and those from only two mints; possibly coinage was halted when crown authorities learned from Vaudreuil that the coppers were not circulating.



22. SOL DE 9 DENIERS DE ROUEN.

Obv. Crossed Roman L's crowned. SIT·NOMEN·DOMINI·BENEDICTUM·

Rev. COLONIES / FRANÇOISES / 1721 / B. To the left of the date, a trompe de chasse, (coiled hunting horn), for Pierre Duval, but a device which had been used—since the days of Francis I, 200 years earlier—by Rouen mintmasters, probably honoring the royal hunting preserves. (Mazard calls it a trèfle or clover leaf, but the Rouen hunting horn is standard on other coins from this mint.) To the right of the date, a pique (spade suit in cards, though called spearhead by Zay) for Pierre de Roscherville, chief engraver.

Copper. 6.118 grams (94.4 grains). Diameter 25 to 28mm. Dentilated border (usually off flan). Minor positional varieties. Usually much worn; rare. Zay 8 (p. 54), Breton 506, Guilloteux 12, Craig 99:3 (illustrated). Probably only a small part of the authorized 1,200,000 were coined. The copper blanks came from Sweden.



23. SOL DE 9 DENIERS DE ROCHELLE.

1721. Obverse and reverse as the preceding, but mintmark H. *Différents*: before SIT, a vague mark called a trefoil by Zay or an acorn by Mazard (for Jean Donat, mintmaster); after BENEDICTUM, an arrow (called a root by Zay and Ciani, an ermine tail by Mazard—it is wholly unlike the heraldic hermine found on mousquetaires) for chief engraver Jean Lisard.

Copper, same weight, 23.5 to 27mm. Hoffmann 83 (pl. CXII), Zay 6 (p. 54), Breton 507, Guilloteux 13, Craig 99:3, Mazard 6. Probably a somewhat larger fraction of the authorized 2,000,000 for both dates were issued. Various minor varieties: (a) widely spaced date 1 7 2 1, (b) date closer and even. Common.

1722. As the preceding except for the date. *Différents* as on the above, though Ciani says they are now a fleur and a pique.

Smaller flans, down to 20 mm. (here no dentilated border shows); same Swedish copper blanks as the 1721 B were employed. Varieties: (a) 1722/1, from at least three different dies, very scarce; (b) C in FRANÇOISES corrected from an I, rare; (c) date double punched, rare; (d) normal date, wide or closely spaced, many dies.

Some 534,000 of these coins were shipped June 11, 1722, to Canada with another 20,000 LT in silver coins on board the royal pay and supply ship *Le Chameau* to retire card money, to pay troops in order to ward off a threatened mutiny, and to induce the sale of beaver pelts to buyers of the Compagnie des Indes. As no copy of the June 1721 Edict had been registered with the Québec Supreme Council, nobody had to accept the

coppers, and they cluttered up official warehouses (aside from 8,180 paid out). They were shipped back to La Rochelle aboard *L'Éléphant* September 26, 1726, arriving on January 7, 1727. In the meantime, the Conseil d'Etat revalued the coins at 6 deniers each in Louisiana; other shipments had gone to the Caribbean colonies. I conjecture that those returned from Canada were later shipped to other colonies.

IX. "Le Chameau" Gold Louis Mirlitons

In May 1725 Crown authorities ordered Jean-Charles Percheron de Saint-James, newly appointed Lieutenant du Vaisseau to take the ship *Le Chameau* to Canada, with a cargo which included 82,010 LT in gold and silver coins, livestock, poultry, textiles, spices, ammunition, etc., and with passengers such as Governor-Elect Louvigny of Trois Rivières, Intendant-Elect Chevalier Guillaume de Chazel (to succeed the retiring Michel Begon), and 100 soldiers and officers, including 40 new recruits from the Paris area and 40 convict-soldiers from the Hospital de Biscestre. *Le Chameau*—a 600-ton, 133-foot transport ship, 30 feet wide with draft of 16 feet, carrying 48 cannon—set sail from Rochefort early in July 1725 with 316 aboard. The voyage was unusually slow despite all efforts made by her experienced navigator, Cheviteau, and the ship reached the Cape Breton Nova Scotia neighborhood—amid miles of fatally dangerous, barely-submerged reefs—during the night of August 25/26, 1725. She was flung onto the reefs by a sudden hurricane, smashing up at about 3:40 A.M. on a rock off Port Nova Island (since called "Chameau Rock"), in Kelpy Cove, about 12 miles from Fortress Louisbourg. There were no survivors. About 180 bodies were washed ashore, so battered that only 16 could be identified by name. The first successful salvage attempt was made in the summer and early fall of 1965 by Alex Storm, David MacEachern, and Harvey MacLeod, silver coins being found on Sept. 19, 1965, gold from Sept. 22 on. Pursuant to the Treasure Trove Act, the salvagers stored everything in a Sydney, Nova Scotia bank and notified the Provincial Secretary. Newspapers and television got the story in April 1966, during which month the crew of the *Orbit* (one of the unsuccessful would-be salvagers of 1961) sued Storm and the other finders. On Dec. 5, 1967, after an 8-month trial, Nova Scotia Supreme Court Justice Vincent Pottier awarded one-fourth of the treasure to the *Orbit* group, the remainder to the finders.

The treasure trove included about 900 gold louis d'or aux mirlitons plus an undetermined quantity of écus and sixièmes d'écus, from most of the thirty mints then in operation, all dated 1723, 1724, or 1725. The gold coins are reputedly nearly the entire emission of louis d'or of this design,

which was of the highest rarity before Parke-Bernet Galleries (December 10–11, 1971) auctioned off 394 pieces from 24 different mints on behalf of Alex Storm and his associates. As most of the silver coins were corroded by exposure to 240 years of sea water, our information about the types is grossly incomplete. However, at least the gold coins deserve a detailed listing as they were specifically intended for Canadian circulation.



24. LOUIS D'OR DE 20 LIVRES AUX MIRLITONS

Obv. Child bust right à la mèche longue, laureate. LUD·XV·D·G·FR·ET·NAV·REX·around, *différent* and date (1723, 1724, or 1725) below.

Rev. Crowned addorsed script L's made of ribbons, within a wreath of palm (?) leaves. *Différent* above the crown. CHRS·REGN·(mintmark)·VINC·IMP·The reason for the name mirlitons (reed flutes) is unknown. Edict of August 1723.

Gold, reeded edge, dentilated borders. Diam. 20–21 mm. 37½ to the marc, 6.52 grams (100.6 grains). Ciani 2083, Hoffmann 14, Craig 91.62. Known from the following mints:

- A (Paris). Renard (Running fox, a canting device of Mathieu Renard du Tasta). Rev. Rose (for Joseph Charles Roettier). 1723 (18 in Parke-Bernet sale), 1724 (7).
- B (Rouen). Pique (spade suit). Rev. Hunting horn, coiled. 1723 (1), 1724 (3). Also one dated 1723, pictured in Parke-Bernet sale, with rev. device of a martlet (?).
- C (Caen). Molet of 5, not voided. Rev. Anchor. 1723 (2), 1724 (5), latter with obv. voided molet or estoile (?) of 6 points.
- D (Lyon). Anchor. Rev. Eagle's head erased. 1723 (10), 1724 (8).
- E (Tours). Crescent. Rev. large molet (1, 1723) or small molet (1, 1723; 6, 1724).
- G (Poitiers). Heart. Rev. Voided Greek cross. 1724 (31).
- H (La Rochelle). Arrow. Rev. Acorn. 1723 (18), 1724 (44). Obv. Molet. 1724 (2), 1725 (37).

- I (Limoges). Harp. Rev. Greek cross. 1724 (13, one with date 1724/23); 1725 (2).
- K (Bordeaux). Annulet. Rev. Lys. 1723 (19), 1724 (82), 1725 (24, one with overdate 1725/4).
- L (Bayonne). Lozenge, for M. Lacroix. Rev. Cinquefoil, for Léon Mousset. 1723 (11), 1724 (28).
- M (Toulouse). Coronet (also called a castle). Rev. Mask. 1723 (5), 1724 (32).
- N (Montpellier). Estoile or 6-pointed star. Rev. Crown. 1723 (3). Dated 1724: Large molet of 5 (3), small molet (1), rooster (4).
- O (Riom). Grape leaf or tree (?). Rev. Trefoil. 1724 (3).
- P (Dijon). Tree. Rev. Suspended powder horn. 1724 (1).
- Q (Perpignan). Pique or tree? Rev. Plume. 1723 (1); Coquille. Rev. Coronet. 1724 (2, one with overdate 1724/3).
- R (Orleans). Tree. Rev. Griffin's head erased. 1723 (2), 1724 (2).
- S and Sainte Ampoule (Reims). Reported, not verified. Acorn for François Lagoille. Rev. Lozenge or hermine for Louis Guiquéro. 1723 (6,800 coined), 1724 (36,000), 1725 (27,600).
- T (Nantes). Heart surmounted by spearpoint. Rev. Lion passant guardant. 1724 (12).
- V (Troyes). Cross fichée, voided in center. Rev. Annulet. 1723 (1).
- W (Lille). Bar. Rev. Lozenge. 1723 (1), 1724 (3).
- X (Amiens). Reported, not verified. Mintmaster Nicolas Sulliot; engraver Charles I. Spens.
- Y (Bourges). Pierced heart in flames. Rev. Crescent. 1724 (3).
- Z (Grenoble). Tulip (?). Rev. Pisces symbol. 1724 (2).
- AA (Metz). Reported, not verified.
- BB (Strasbourg). Reported, not verified.
- Addorsed C's (Besançon). Reported, not verified.
- & (Aix-en-Provence). Heart. Rev. Lozenge. 1723 (5), 1724 (5).
- 9 (Rennes). Carb or wheatsheaf. Rev. Bird standing with wings folded. 1723 (6). Obv. Glaive. 1724 (4).
- Baquette, or small cow (Pau in Béarn). Lion (?). Rev. Maltese cross. 1723 (6). Obv. Lys. 1724 (14).
- In addition, the hoard contained nearly 9,000 écus of the following type:

25. ÉCU AUX HUIT L.

- Obv. Young bust, armored, laureate. Legend as on the louis d'or.
- Rev. Four pairs of addorsed L's alternating with crowns; in their center, a cruciform ornament of lys; SIT NOMEN DOM • (mintmark) • BENEDICT • (date 1724 or 1725).



Parke-Bernet, December 10–1, 1971, 161

Silver, valued at 4 LT. 38.5 mm. Craig 90:37.

The Parke-Bernet auction of the hoard contained:

G mint. 1725 (5).

H mint. 1724 (3), 1725 (158).

I mint. 1725 (1).

K mint. 1724 (1), 1725 (4).

O mint. 1725 (1).

T mint. 1724 (5), 1725 (6).

Unidentified mints: 1724 (37), 1725 (145), illegible dates (8,604). There were also a few older fractional pieces, mostly 1/6 écus.

X. Billon Sous Marqués, 1738–64

Louis XV issued an edict at Fontainebleau in October 1738 authorizing mintage of these coins from all of the French mints then in operation, without any limit on the amount to be coined. These pieces were to pass current at 24 and 12 deniers in Canada, Louisiana and the Caribbean colonies—later also in Mauritius. They were issued because of the exhaustion of supplies of mousquetaires, and bear dates 1738–64 inclusive. Relatively few mints issued them in 1738, but the vast majority did in 1739, smaller numbers doing so in later years. The smaller denomination was issued principally in 1740, all other dates being of extreme rarity. Contrary to many earlier writers, these coins had no official valuation in France (see Edict of March 30, 1744). During their last few decades, they formed the principal colonial circulating medium in denominations below 7 livres 6 sols. They were counterfeited in quantity.



26. DOUBLE SOL DE 24 DENIERS or "SOU MARQUÉ"

Obv. Crowned large Roman L between two lys, above a third. LUD·XV·D·G·FR·(*différent*)·ET NAV·REX·

Rev. Script L, leaved and crossed with a leaved branch, giving the superficial appearance of two interlaced L's, the whole crowned. SIT NOM·DOM· (mintmark) BENEDICTUM (*différent*) (date). The crown from same punch as on obverse. Dentilated borders.

Billon, originally silvered; 22.5 mm.; 112 to the marc = 2.185 grams (33.5 grains), with an observed range of 28 to 41 grains). Hoffmann 68; Zay, pp. 66–67; Ciani 2138; Breton 508; Craig 90:12 and 100:6; Guilloteux 19; Charlton 2.

Those coins with a dot below D of LUD (in addition to the stop after D) were struck in the second semester or half of any year. A few date-mint combinations are known only as second semester coins.

The coins were demonetized in 1763; the 1764's (and many 1763's) went to Caribbean colonies. These late dates also continued to circulate in British Canada (after the 1763 Treaty of Paris) at a farthing apiece. Double Sols are known from the following mints:

A (Paris). Renard with small lozenge. Rev. Rose of 5 petals (rarely 6), large or small, sometimes voided. 1738 (rare; counterfeits exist); 1739 (many varieties); 1740/39, 1740 (both very rare); 1741 2nd semester (counterfeits exist); 1742 (counterfeits exist); 1743 (pictured in Howland Wood's monograph on West Indies coins; extremely rare); 1744 (extremely rare); 1745 (none traced); 1746 2nd semester (extremely rare); 1747/6 (ANS); 1748 (one reported); 1749 2nd semester (extremely rare); 1750 (usually counterfeit, very rare genuine); 1751–3 (only one each reported). Rev. Seeded rose of 5 petals—Charles Norbert Roettier's tribute to his father. 1754/3 no stop after NAV (one seen); 1754 (extremely rare); 1755/4 (extremely rare); 1755 (usually counterfeit, seldom genuine); 1757/6 (extremely rare); 1757 (very rare). Obv. Heron, rhyming device for Jean Dupeyron de la Corte (sometimes called a grue or crane). 1757 2nd semester

only, very rare; 1758/4 (ANS); 1758/7 (one reported); 1758 1st and 2nd semester (both very rare, second more so); 1759 (extremely rare). Rev. Croisette potencée, for C. N. Roettiers. 1760/59 date usually blurry (extremely rare, all 1760's with normal date being counterfeits); 1761 2nd semester (extremely rare); 1762 first and second semester (both extremely rare, the second more so). Obv. Tree. 1762 (extremely rare); 1763/2 (extremely rare); 1763 (rare); 1764/3 (scarce); 1764 first and second semester (fairly common).

- B (Rouen). Pique, flanked by pellets. Rev. Coiled hunting horn. (All dates are extremely rare, 1740 the least so) 1739; 1740/39; 1740; 1741; 1742/1 (ANS); 1742/39 (J. J. Ford); 1742.
- C (Caen). Molet of 6 or estoile. Rev. Urn (?). (All dates are extremely rare) 1739; 1741; 1743; 1744; 1747; 51.
- D (Lyon). Molet or estoile of 8 points. Rev. Bird or rooster's head. (All dates are extremely rare) 1739; 1740; 1741 (counterfeits exist of the 1741).
- E (Tours). Heart. Rev. Molet of 5. (The date 1739 is rare, others are of the highest rarity) 1738 (known only from the Boucher sale of 1901); 1739; 1740; 1742; 1746; 1747/6.
- G (Poitiers). Hurst (?) (looks like two trees from same base). Rev. Crowned heart or slipped thistle head (?) (All dates are of the highest rarity) 1739–42 inclusive.
- H (La Rochelle). Molet of 5. Rev. Narrow tower (?) for Gilles I (Senior) Massenet. All genuine pieces show these *différents*; all are of the highest rarity. The common 1742's with other *différents* are counterfeits. 1739; 1740; 1742 (4 open at top); 1747; 1749; 1750. The counterfeits have obv. with a voided molet of 5 between pellets, the crown too tall, rev. broad cross pointée, date 1742 with closed 4. Bluish billon and red copper; weights 22 to 41 grains; they are almost always seen in uncirculated condition and are common.
- I (Limoges). Lozenge and aigrette. Rev. Clubs or staves in saltire. (Extremely rare) 1739–41.
- K (Bordeaux). Annulet between pellets. Rev. Plume. (Extremely rare) 1739; 1740; 1742 (Allan Fargeon); 1743 (ANS, ex Boyd), 1744/3 (Banque du Canada).
- L (Bayonne). Leveret or other animal passant, for M. Lacroix. Rev. Small cinquefoil, possibly for Léon Mousset. (Extremely rare) 1739 (FR· or FR:); 1751.
- M (Toulouse). Voided molet of 5. Rev. Rose of 6 petals. (Extremely rare) 1739 (Banque du Canada); 1742.

- N (Montpellier). Anchor. Rev. Conch shell. 1739 (Rare); 1740 (extremely rare); 1742/1 One traced.
- O (Riom). Grape leaf or tree. Rev. Trefoil (club suit). 1738 (one seen); 1739 (varieties exist, extremely rare); 1740 (2 traced).
- P (Dijon). Anchor, for Pierre Nardot. Rev. Suspended powder horn (all extremely rare) 1738–44 inclusive, the date 1742 reported last by Rousseau in 1861. ANS has a silver piefort which may be the original Penchaud coin: cf. Hoffmann 69, Ciani 2139.
- Q (Perpignan). Coquille, for Christophe Bordeau, through March 1739; later *différents* are illegible on known specimens. 1739; 1740 (both extremely rare).
- R (Orléans). Glaive. Rev. Gargoyle, called by Ciani “boar’s head.” 1738–9, both of highest rarity. Obv. Molet of 5, not voided. 1741 (Extremely rare).
- S and Sainte Ampoule (Reims). Obv. Acorn for François Lagoille (to July 31, 1740). Rev. Fruit, called merlette (martlet!) for Jérôme Savoye. (Extremely rare) 1738 (285,156 coined); 1739 (1,731,-096); 1740 (165,061). Obv. Key (canting device for Pierre-Étienne Clay de Coincy) 166,992 coined from August 1 to December 31, 1740. Untraced. Cf. P. Prieur, “Contribution à l’étude de la monnaie de Rheims,” *RN* 1950, 71–132.
- T (Nantes). Lion passant. Rev. four. 1739 (extremely rare). Rev. Dove descending? 1739–40 (both extremely rare). Obv. Tree, Rev. ?. 1740 (two traced).
- V (Troyes en Champagne). Turret. Rev. Grape leaf. 1738 (untraced); 1739 (2 seen). Rev. Dove descending? 1739 (extremely rare). Obv. Tree between pellets or between a pellet and a small lozenge. 1739 (extremely rare); 1740–42 (extremely rare). Counterfeits exist of the 1739.
- W (Lille). Bar (for Jean-Baptiste Baret, later P. F. Baret de Ferrand). Rev. Solid lozenge. (All are extremely rare except 1739) 1738; 1739/8 (Laties), 1739 (scarce); 1740/39; 1741; 1742 (untraced); 1743; 1744/3 (one seen). Heron, for Jean Dupeyron de la Corte. 1744 (rare), 1745–47 (extremely rare). Counterfeits of 1746 have fox and rev. lozenge, as though imitating the Paris issue.
- X (Amiens). Animal standing on hind legs, between lozenge and dash, called épi cié, for François-Robert Lépicie, through March 31, 1739, continued by Nicolas-Jacques Pirlot. Rev. Heart, for Charles I and II (Sr. and Jr.) Spens. (Extremely rare) 1738–41 See M. Meich, *Bull. trimestriel de la soc. des Antiquaires de Picardie*, 1963, pp. 81 ff, 135 ff.
- Y (Bourges). Martlet (swallow, no feet). Rev. Crescent. 1739 (extremely rare).

Z (Grenoble). Dolphin. Rev. Inverted crown. (Extremely rare). 1739–41.

AA (Metz). Molet or cinquefoil between pellets. Rev. Hermine (All extremely rare) 1738; 1739; 1741; 1742; 1744; 1750.

BB (Strasbourg). Heart, for Jean-Louis Bégerlé. In later years the heart is shown as vulned or brisée (with a small wedge-shaped piece cut out). Rev. Molet of 6, voided, for Pierre l'Écrivain. (The date 1756/46 is rare; all others are extremely rare except for 1762 which is very common). 1738; 1739 (ANS has one with rev. demi-molet—a broken punch); 1740; 1741/39; 1741/40; 1741 (varieties exist); 1742/1; 1742; 1744 (varieties exist); 1747; 1756/46; 1762. All seen with date 1751 are counterfeits; counterfeits also exist of 1762 in copper.

Addorsed C's (Besançon). Eagle's head erased. Rev. Double-axe. (All extremely rare) 1739; 1740 (varieties exist); 1741.

& (Aix-en-Provence). Anchor. Rev. Lozenge. 1739 (extremely rare).

9 (Rennes). Thistle head (?), called mallet by Ciani; rev. martlet or duck. (Extremely rare). 1739–41.

Garb or wheat sheaf. Rev. Fowl passant. 1742.

Cow and DBR (for Pau in Béarn; the cow was called in Béarnais patois a baquette, the DBR (Domaines Béarnaises du Roi). No *différents* visible. 1739: Schlumberger coll., Musée des Beaux-Arts, Pau; 1743 ANS. No duplicates reported.



27. SOL DE 12 DENIERS or DEMI SOU MARQUÉ. Obv. and Rev. identical but BENEDICT.

Billon, 16–19 mm., 224 to the marc = 1.092 grams (16.7 grains). Usually well worn. Hoffmann 70, pl. CXI; Ciani 2140; Breton 509; Craig 90:11 = 100.5; Guilloteux 20; Charlton 6. For long the existence of any date but 1740 was controversial. These coins circulated in Canada and Mauritius, valued at 9 deniers after 1744. No pieforts, no second semester coins, no counterfeits. Except as noted, *différents* are the same as on double sols.

A. Rev. Voided molet of 6. 1738 (unique); 1739 (2 traced); 1740 Die varieties exist (rare); 1746 (1 traced); 1748 Rev. sixfoil or rosette

- of 6 (rare); 1764 Reported by Conbrouse in 1839, since untraced.
- B. 1740 Die varieties exist (extremely rare).
- C. 1739 (believed unique). Banque du Canada.
- D. Molet of 8, not voided; rev. eagle's head coupé. 1740 Die varieties exist (very rare).
- G. *Différents* generally illegible. 1740 Die varieties exist (very rare).
- I. 1740 Reported by Rousseau (1861), since untraced.
- M. 1740. Three seen, all so worn that *différents* are illegible.
- N. 1740 Banque du Canada.
- O. 1740 (1 traced), *différents* illegible.
- P. 1739 (3 traced); 1740 (extremely rare).
- S and Sainte Ampoule 1740 (152,600 coined). Untraced.
- T. 1740 (2 seen).
- W. 1740 (rare, but less so than most other mints).
- X. 1740 Banque du Canada and one other traced.
- Y. 1740 Reported by Rousseau (1861); present whereabouts unknown.
- AA. Molet not voided. 1740 Without or with stops after FR and BENEDICT. (Very rare, former more so); 1748 Reported—Jenks 5328, untraced.
- BB. Heart not vulned; voided molet of 6. 1740 (probably the most common of these).
- Addorsed C's. 1739 (2 traced); 1740 Reported but not presently traced.
- &. 1740. Breen coll.

During the four years after the demonetization of 1763, sous marqués were returned in vast quantities to the French treasury to be countermarked with a crowned C for the Caribbean colonies, some 6,000,000 being so marked; these circulated in Acadia as well as in the Caribbean, being called in creole sols tampés—anglicized to stampees. There are three types of countermark: (1) Crowned small C (3 mm.) in depressed outline, Craig 100:7, Mazard 9C, Zay 22; (2) small crowned C (3 mm.) in relief, Craig 100:7a, Mazard 9B; large crowned C (5 mm.) in relief, Zay 22a, Mazard 9, Craig 100:7b. Guilloteux 22 cites a mousquetaire with one of these three marks. Howland Wood (p. 132) pictures a forgery struck from dies bearing only the crowned C and a few vague letters purporting to represent the worn-out legend! Zay (p. 69) tells us that sailors brought large quantities of stampees and billon-neuf sols to Brest about 1802; when many proved counterfeit, authorities banned any further circulation of the coins.

With the exhaustion of available stocks of billon sols for countermark-

ing, the Paris Mint in 1779 made 300,000 billon blanks of 23 mm. and countermarked them (the billon-neuf sols) to pass current as sols tampés in Cayenne (French Guiana). Guilloteux 21, Craig 100:10, Mazard 9D; they are listed here because they may have reached the New Orleans area.

Louis XV's last edict dealing with coinage was that of October 1766 authorizing the issue of 1,600,000 copper sols of 12 deniers at Paris.



Obv. Scepter and main de justice in saltire, dividing L. XV. COLONIES FRANÇOISES above, mintmark A below.

Rev. Wreath enclosing three lys, crown above. SIT NOMEN DOMINI BENEDICTUM 1767, croix ancrée left of date, for C. N. Roettiers. Many minor varieties.

Ornamented edge, 29mm., thickness 2mm.; struck at 20 to the marc = 12.236 grams (188.8 grains). Guilloteux 23, Craig 100:4, Mazard 10. Usually much worn; Wayte Raymond had a brilliant uncirculated specimen.

Over 90% of these were countermarked RF in an oval, pursuant to the decree of the Extraordinary Assembly of Guadeloupe of September 28, 1793, to pass at 3 sous 9 deniers (1/4 escalin or 2¼d). Long believed to be for use in Louisiana, these reached the continental United States only unofficially side by side with counterfeit halfpence, black dogs of all kinds, and fractional Spanish silver; they are found mostly in Canadian accumulations with anonymous British coppers and early nineteenth century tokens.

The coinage of Nouvelle France was imported, as was most of the coinage of British America. There, the major exception was a long series of silver coinage, struck in Massachusetts Bay from the early 1650's to the 1680's.

CHAPTER 6

Variations of the Die Varieties of the Massachusetts Oak and Pine Tree Coinage

Richard Picker

In his works on the Oak and Pine Tree Coinages of Massachusetts, Sydney P. Noe assigned numbers to each die variety in numerical order, starting with the highest denomination. This system leaves little room for the inclusion of new dies, new combinations, and earlier or later states of the dies described. In order to be consistent with his designations, it is necessary to resort to decimals. This still poses a problem when we find an earlier version of a die that Noe described. For these instances, we have reserved the decimal .1. For instance, in the Oak Tree series, 6.1 designates an earlier state of the dies that Mr. Noe described as no. 6. Should we find two or more earlier states of the same dies, we shall use additional decimals, but, always, .1, as we've done with 6.1.1. As we find later recuttings of dies described, we will use higher decimals, in the order we feel they were cut, such as Oak Tree Shilling Noe 13.3, 13.6, and 13.9. In other words, the decimal .1 is always a minus number, denoting a state of the dies earlier than described in Noe's original works. All other decimal numbers denote later states than those described.

We realize that errors and omissions will be found in this effort, and welcome correspondence on the subject for inclusion in a later work that will include the NE and Willow Tree issues, as well as the Oak Tree Twopence variations. In this later work we also intend to include the contemporary circulating counterfeits of all series.

I wish to thank the following people and organizations for their assistance in the preparation of this paper by supplying coins, photos, descriptions, etc.: American Numismatic Society; Walter Breen; John J. Ford, Jr.; Lester Merkin; Eric P. Newman; New Netherlands Coin Co., Inc (Charles Wormser); Mrs. R. H. Norweb; Stacks; Robert Vlack; Alan Weinberg.

Oak Tree Coinage

SHILLINGS



1.1 Early die state, prior to minor recutting to arrive at Noe 1. Notable differences—Obv. First T is considerably thinner, H somewhat thinner, and with smaller serifs. Rev. Most letters somewhat thinner. N of AN much thinner, and seemingly incomplete, lacking upper left serif. The actual coin was unavailable for study. A photograph of the specimen (New Netherlands Dec. 3, 1968, 187) indicates that the coin was holed and plugged below first A. Apparent differences in this area are not noted because it is not possible to determine whether these differences are due to repair or die cutting.



1. Rev. Light die break develops from crossbar of N of NEW about one-third down from its highest point, curving down through the right upright of N into crossbar of E, and then up through upper serif of left leg of W into ring of beads. Engraver's scratch from left edge of serif of right upright of N of AN slanting to the left, down to the crossbar of N. The die break joining N and D of ENGLAND mentioned by Noe evidently was a die flaw that eventually worked out or was repaired. There is a tiny dash below the right serif of the right upright of that N. Private collection, 4.4703 grams.



1.5 From the late state of rusted dies. Differences most apparent on the reverse where most letters are very thin, evidently from wear. Crossbar of A of AN is lacking. Many rust spots in lettering and within inner circle. Die break in NEW heavier, indicating later, worn dies rather than earlier unfinished dies. Vlack collection, 4.6423 grams.



5.1 Early die state prior to minor recutting to arrive at Noe 5. Coin not available for study. Description quoted from Lester Merkin Nov. 20, 1968, 2. Obv. "V not as tall as H.S's with shorter serifs, beads above HV stronger, beads above SETS small and fine like the rest but wholly unlike the widely spaced beads on all regular N-5's; upright of E much heavier; minor tree differences; Rev. Early die state as in Noe 4." Since this coin was triple struck, other differences that were not apparent may exist. 4.57 grams.



6.1.1 Evidently the dies used for Noe 6 clashed more than once. This specimen shows the results of clashing, but not nearly as severe as on Noe 6. Most of the branches are still clear, as are the roots and letters below the tree. The period after N is in full evidence. The reverse die breaks are about the same as on Noe 6.1 (see below), but not as advanced as on Noe 6. MA slightly thinner than 6.1. Bottom curve of first S is incomplete. Private collection, 4.5959 grams.



6.1 The dies of Noe 6, but prior to the heavy clashing of the dies. Very light clash marks noted on left side of tree, but all details of the tree and legends are complete, and the period after N definitely confirmed. Reverse die break not as advanced as on Noe 6. Bottom curve of first S completed. Serifs added to the first A. Some beads enlarged. Other minor differences in the lettering. Stack's Oct 27-28, 1967, 4.



8.5 A recutting of the obverse of Noe 8, but prior to the final recutting to arrive at Noe 9. Würtzbach, *Mass. Silver*, 14, and described by him as a new obverse. Coin not available for study. Description quoted from *New Netherlands* Dec. 3-4, 1968, 194, "The obverse is an intermediate die state between Noe 8 and 9, the reverse that of Noe 9. Tree more like Noe 9 than 8 in general outline, though all branches are weak and timorously cut. The inner circle of beads is not as heavy as on Noe 9; all letters thinner than on Noe 9, most notably the MAS..HV.ETS; no dot after final S."

11.5 No coin or photo available for study. Description from notes of Walter Breen, "Obv: Similar to Noe 12, but without lump in right field. Tree of intermediate form between 11 and 12. Roots more like 11. Rev: top of 5 points down as in Noe 12, but 6 still shows recutting."

12.5 No coin or photo available for study. Description from notes of Walter Breen, "Obv: Reground to remove lump in right field. All branches very delicate. No visible roots. Letters and beads smaller and thinner. Under left foot of H are 2 beads, to the left of which is a very small one, hardly visible. Rev: Same as Noe 12. It appears that these dies were next used to make Noe 13."



13.3 As described in Newman, *ANSNM* 142, pp. 67–8, "Oak Tree shillings Noe 13 and 14 are from the same pair of dies and differ only by extensive recutting. In the course of their transition from one state to the other there are intervening states. The first recutting shows that the obverse differs from the obverse of Noe 13 by having shaggy instead of bare branches on the tree, by the top of the second S having a serif and by the crossbar of the second T being forked at both ends. The reverse is the same as the reverse of Noe 13." Hawley collection, 4.57 grams.



13.6 As described in Newman, *ANSNM* 142, p. 68, "The obverse shows further recutting from transition state Noe 13.3 and now approaches the

state of the obverse of Noe 14. The dots in the circles are enlarged and the top of A has been extended to touch a dot in the outer circle. The E has forked serifs. The top and bottom of the first S have serifs. The reverse continues to be the same reverse of Noe 13.” Jackman specimen.



13.9 Same obverse as 13.6. The reverse is the style of Noe 14 but prior to the final recutting, lacking serifs on E..LA of ENGLAND. N and D of ENGLAND are unfinished. Period after ENGLAND appears to be lacking. Date and denomination not yet recut to final forms. Private collection, 4.5090 grams.

SIXPENCE

17.1 As described in Newman, *ANSNM* 142, p. 68, “The defects on both sides of Oak Tree sixpence Noe 17 are now known to have been caused by die damage rather than being the result of ‘a reused flan’ as stated in Noe. The obverse and reverse dies were struck, or fell together when no planchet was between them, each die thus damaging the other. The undamaged die state is therefore given a separate numbering.”



17.5 Würtzbach, *Mass. Silver*, 126A. Description quoted from New Netherlands Dec. 3–4, 1968, 200, “. . . after drastic clashing and reworking to restore details, and after a second worse clashing, but before reworking to make Noe. 18. MASATHVSETS (:?) (I)N:, wide V over small

V, three trunk lines and coarse cross-hatchings to tree, rather than two lines and fine cross-hatchings as seen on Noe 17, 17.1; from now similar to Noe 23, 25. Rev. (NEW)ENGLAND:ANDOM(?), date very high, no colon after AN, large A over small A in ANDOM, beaded circles and letters reworked." Vlack collection, 2.2275 grams.



21.5 As described in New Netherlands Dec. 3-4, 1968, 202, "Partial modification of the obverse of Noe 21: both M and A of MASATHVSETS distant from inner border as on Noe 21 (or even more so), but their bases not even with M, considerably higher; the serifs of M and A do not join as on Noe 22, instead, a die lump connects two beads and the right foot of the M, touches a third bead and barely misses the clearly detached l. serif of the A; while the M is similar to that found on Noe 22, it is smaller (as on Noe 21), and much more delicate and irregularly shaped; the A is very thin and even more flimsy than the M, being poorly constructed with its left leg short; the crossbar of this A is very low and bowed at center, while the crossbar of the second A is quite high and curved up in the opposite direction; only the lower curve of the seemingly reversed S is visible, but it appears much heavier than on Noe 21 and turns up at the end; a projection from the S goes to the defective l. serif of the second A, and appears to constitute an extension of the l. stand of that letter. There are other differences on this obverse die of comparatively minor significance."



22.1 Seemingly unfinished dies of Noe 22. Smaller beads in inner and outer circles; letters thinner; serifs of both T's lacking; bottom serifs of IN

lacking (top parts of these letters are off the planchet on the one coin available for study); the tree is delicate and seemingly unfinished; only the bottom portion of the corrected S is completed. Other minor differences. Alan Weinberg collection, 2.2644 grams.

THREEPENCE



27.1.1 Described in New Netherlands Dec. 3-4, 1968, 204, as Noe 26.8, but since obverse 27 has been fully developed, under this new system, we are taking the liberty of changing that designation: "Obverse that of Noe 27. MASATHVSE TS, ten-beaded rosette; base line of tree slants up. Rev. NEWENGLAND, six-beaded rosette, as Noe 26 but reworked beads, 6,2 and EWEN. The die flaw at EW is present; (this was ground off to make Noe 27)."



27.1 Very similar to 27.1.1 but recutting of V more definitive and bush (?) at right side of tree more fully developed. Weak branch emanating from roots on left side. Rev. Flaw at EW further advanced. A serif is added to the bottom of the middle I, and serifs strengthened on other numerals of the denomination. Two tiny beads added under E of ENGLAND. Other minor strengthening. Private Collection, 0.9861 gram.



28.5 Obverse reworked after die clashing. Thirty-seven inner beads instead of 38, placed further apart, mostly from 3:00 to 9:00. Outer beads placed further apart, mostly from 9:00 to 11:30. The beads are much smaller and several are misplaced, some inside and some outside the normal arcs of both circles. Two additional beads outside the inner circle below the tree are presumably vestiges of an obliterated ornament or rosette. The tree has been reworked, as well as the letters, most of which are now thinner. An additional severe clashing occurs, showing NE (of NEW on the reverse) deeply incused at 3:00–4:00, obliterating ETS. Rev. The die break is much further advanced and extends to the rim above D and to the rosette. The other end of the break obliterates the top part of A. An extension of the break goes from the top of the left upright of N through the crossbar of A, out through the left leg of A into the field above 52. Private collection, 0.9471 gram.

35. A new variety as described in Newman, *ANSNNM* 142, p. 67: "Obverse: The legend reads MASATHVSETS·IN· and has no rosette. The IN is part of the obverse legend similar to the obverse legend in Noe 23. The trunk of the tree has 4 vertical lines intersected by two cross lines rising from left to right. Reverse: The same reverse as Noe 28, but with a die break running from the top of the rosette to the top of the D to the outer circle of dots." The "former Stack specimen" listed by Newman was resold in Stack's June 20–3, 1973, 774. 1.07 grams.

TWOPENCE

29-34 Noe, *ANSNNM* 110, pp. 10–11, mentions that though only one pair of dies was used for this denomination, they were relatively easy to repair and recut, since they were so small, and the letters not deeply cut. Noe described six different stages of the recutting of the reverse die. Since that time, several intermediate stages have been found, most of which are different states of the die breaks, but a few are actually intermediate recuttings. Since the differences are so small, and so few coins are available for study at this time, we are leaving this group to be included in another paper to be done some time in the future. We should note however that a very distinctive state attributed as Noe 31.5 has been published in *ANSNNM* 142.

Pine Tree Coinage

SHILLINGS



1.5 Obv. Die of Noe 1 but the incusation from die clashing has been repaired. The roots are now cross-hatched. Other very minor adjustments have been made. Rev. Completely reworked. On the only known specimen to date the tops of many letters are off the planchet, but in examining all that are visible it can be seen that they have all been reworked. The rosette appears to have only six beads instead of nine, but this might be due to weak striking in that area. The date has been completely redone, changing the shape of the 5 and 2, with a very prominent dot over the 5, which is much too far off center to have been a center dot. The X is now further left leaving a space between it and II. These dies evidently clashed while out of alignment, resulting in an incused M and several of the outer beads of the obverse appearing under II. Private collection, 4.8014 grams.

4.2 From description in Lester Merkin Nov. 20, 1968, 6, "As Noe 4 but die partly reground; GL do not touch, crossbar of adjacent A gone, AND mostly misshapen from rust and die injury."



4.5 Description from New Netherlands Dec. 3-4, 1968, 213, Obv. "The forms of M...THV.E.. are as on Noe 5 as is the inner circle, but the tree is as on Noe 4; The letter M has its third stroke so weak as to be hardly discernible. Rev. Die injury and failure at AND·; die reground at O leaving that letter partly open; break at M extended; inner beads, date and XII as on Noe 5 but as yet not strengthened; die extensively reground. . . . Note obverse details of top horizontal of first T, the bottom serifs of the H, all of the letter V, and, possibly, the bottom serif of the second S . . . Reverse of Noe Nos. 4, 5, 6 is the same die as that of Noe 9 and 10 in a later state, reground in a futile attempt to eliminate die flaws, and strengthened in some letters and numerals to compensate for the weakness produced by regrinding."



8.2 Whereas die breaks grow larger in size as production increases, die flaws and die damages tend to smooth out and become less apparent in later strikings. Noe 8 exhibits a heavy flaw in and above the beading just under the trunk of the tree in its earliest state, prior to any sign of the die break at GL on the reverse. Also, early in the striking, the dies evidently clashed resulting in a light incused impression of the central portion of the obverse on the central portion of the reverse. As striking continued, the die break developed at GL and grew larger, while the die flaw and damage grew less apparent. Finally, minor deterioration and recutting took place resulting in this intermediate 8.2 state. Obv. Second stroke of M deteriorated badly and third stroke recut so that it crosses the fourth stroke about one third from its top. The crossbar of the first T has been straightened and its upright thickened as on Noe 9. The top serif of the second S is completed as on Noe 9. The three beads under that letter are lacking, as mentioned by Noe in his latest state of Noe 8. Rev. 6 of date recut so that both ends are forked. Crossbar of A in ENGLAND while very weak on Noe 8 has now completely disappeared. Other minor deterioration apparent on obverse and reverse. Die break develops from left top serif of 1 of date to bead under upright of E, and a few light breaks from under that numeral to the beads under W and from the base of 2 to

the bead under the right side of the left upright of A. Private collection, 4.7005 grams.



11.5 A recutting of Noe 11. Noe evidently omitted this variety inadvertently, as it is listed and described in Crosby as his number 2.b-A.2. Obv. The tree is similar to Noe 11, but all branches now join the trunk which has been strengthened, tapers gradually, and is cleft to the sixth limb on the left. The roots have been reworked. Noe 11 has several additional beads inside the inner ring. Most of these have now been removed, leaving only one adjoining the bead under the left serif of the second A, and one between the tips of the third and fourth branches on the left. The lower portion of the first S has been strengthened. There are other minor changes. Rev. Colons have been added after ENGLAND AN and DOM, the first of which is composed of two dots very close together, slanting to the left and very close to the base line of the letters. The date has been strengthened showing some doubling within the loop of the 6. The tops of 52 are much closer to each other. The beads and some of the letters have been reworked, notably the first E and the first A. Norweb collection (ex Parmelee 330?) 4.715 grams.



13. It is the opinion of the writer that Noe 13 is a contemporary circulating counterfeit. Though Noe was able to locate only one specimen (Mass.

Hist. Soc. 3.08 grams), several others have been seen since his work was completed (Mayflower [Stearns], Dec. 2-3, 1966, 87, 88 as well as others). The lettering is very crude, as is the styling, which is unlike any known genuine varieties. The size and shape of the tree as well as the space within the inner circle suggest the small planchet type, whereas the thickness of the flan is that of the large planchet type. The parts of the letters of the outer legends that are visible also suggest the large planchet type. All specimens seen to date are heavily worn and severely clipped, presumably to give the appearance of a good deal of circulation, so that they might be more readily acceptable in ordinary commerce. Vlack collection, 3.321 grams.



14. The writer feels that this variety is also a contemporary circulating counterfeit. Noe knew of only the two specimens in the Yale University collection, both of which were very worn and clipped (3.02 and 3.03 grams). The specimen illustrated here Mayflower (Stearns) Dec. 2-3, 1966, 89, weighs 2.7426 grams. That sale had three other specimens (Lots 90, 91 and 92), all of which were also severely worn and clipped (weights unavailable). Other examples seen exhibit the same characteristics, suggesting the same conclusion as that advanced for Noe 13. The parts of the letters of the outer legends that are visible appear to be somewhat better formed, but again of the large planchet size. Vlack collection.



38. We include this number here because it is actually a muling of Noe's obverse 17 with his reverse 23; it would be Crosby 22-M if he had known

of this combination. We cannot logically assign a decimal number to it under this system and must simply resort to the next available number. Originally this specimen weighed 4.33 grams. In order to be certain that this only specimen known to date of this variety was not a deception of some sort, a small section of the edge (at 9:00) was filed down and the edge was examined under a microscope. The results prove conclusively that this is a genuine coin, and a new variety. Both dies appear to be in late states. Private collection, 4.2931 grams.



22. This coin, though in a slightly later die state than the specimen described and illustrated in Noe, has not seen any reworking, and it is not to be considered an intermediate state. It is illustrated here because it shows the full obverse die, and the clear recutting of M..ATHV.E., as well as the additional and advanced breaks on the reverse. Private collection, 4.5565 grams.



26.2 This was evidently a very shallow-cut die, and saw many weaknesses develop through use. The major ones noted in this state are: the second and third strokes of M are not joined to the uprights; the right crossbar of the first T is incomplete and all but lacking; the top serif of the upright of H is lacking; the top part of the second S is very weak; the upper portion of the upright and the top crossbar of E is lacking; the crossbar of the

second T appears as only a thin line; the G on the reverse is weaker than the other letters. Other minor weaknesses exist. By far, more specimens of this state have been seen than the actual Noe 26, and it is the state that Crosby illustrated as his 15-0. Private collection, 4.4725 grams.



26.4 The same weaknesses on the obverse as mentioned above. The G on the reverse is all but obliterated. In addition to the advanced state of the die breaks normal to this reverse, a few others appear, notably from the 2 of the date through the upright of D to the rim. Private collection, 4.4926 grams.

26.6 Obverse of Noe 26, reverse of Noe 27. The only specimen known to date is too worn to determine details of the die states, but enough details are visible to confirm the attribution. Vlack collection, 4.1720 grams.

SIXPENCE



33A Though the dies and die states of this specimen are the same as are illustrated in Noe, it is included here because it shows more of the top portion of the obverse legend than is shown in the Noe illustration. Private collection, 2.1619 grams.

THREEPENCE



34. This specimen is included because it shows clearly that there is an ornament of four beads after ENGLAND ∴ and that the first S is clearly cut over another letter, perhaps another S that was started too high. Private collection, 0.9363 gram.



36. This specimen is included to show the heavy rim break that developed, encompassing the three beads above the space between AS and the break or flaw through M, which may have been responsible for the obliteration of that letter when this repaired die was used for Noe 37. Private collection, 0.9379 gram.



37. This specimen illustrates the advanced state of the die, showing that the break that obscures the second A has now involved the top part of the first S. Private collection, 1.0966 grams.

CHAPTER 7

The Carolina and New England Elephant Tokens

Richard G. Doty

With the exception of the Massachusetts silver issues, most of the coins and tokens used in the colonies came from Europe, the majority of them as a result of trade. In addition, there were several attempts to provide certain colonies with special coins or tokens, struck for them in England, and shipped across the Atlantic to the place where they were to be used. The Calvert coinage for Maryland is one such example, the Carolina and New England Elephant Tokens of the late seventeenth century are another.

These were issued in 1694, probably in London. . . . It is not known whether these tokens were intended to serve as coins, or were struck only as medals, to increase or perpetuate the interest in the American Plantation. . . .

Since Crosby (p. 337) wrote those lines a century ago, we have learned a great deal more about these pieces, although many questions remain unanswered and, probably, unanswerable. What follows is a recapitulation of the presently known facts concerning this series.

The Carolina and New England Elephant Tokens were copper pieces, used as halfpennies, struck in 1694. Two obverses are known, both of them portraying an African elephant facing left. On the first obverse, the elephant's tusks are fairly distant from the milling, and the animal's right legs are somewhat badly cut. The second obverse variety has the legs more expertly rendered and the tusks almost touching the milling. The reverses bear inscriptions making reference to either Carolina or New England and the date, 1694. On one of the two Carolina reverses, the word "Proprietors" (the complete inscription should read GOD : PRESERVE : CAROLINA : AND THE : LORDS : PROPRIETORS . 1694) is spelled with an E in place of the final O. This variety is extremely rare, and later tokens with the Carolina reverse have the word correctly spelled, the E plainly visible under the O.

The second basic reverse mentions New England (GOD : PRESERVE : NEW : ENGLAND : 1694 :). As with the first of the two Carolina pieces, this one is also excessively rare. The first elephant obverse is only em-



played with the misspelled Carolina token. The other Carolina piece and that of New England use the second obverse, which is also seen in connection with several tokens referring to London, but generally included in the American series.

The London tokens in question all employ the same basic reverse type, the arms of the City of London, with very minor differences in the shield. The reverse inscription on all but one of the five known varieties is : LONDON : GOD : PRESERVE :; the other variety merely has the name of the city, broken by the shield (LON DON).



There has been a good deal of controversy concerning the age of the London tokens. While none are dated, the reverse inscriptions seem to indicate that they were struck prior to the dated tokens of the American series. In a closely reasoned argument, C. Wilson Peck, writing in the second edition of *English Copper, Tin and Bronze Coins in the British Museum, 1558-1958* (1964; pp. 137-8), attributes them to the reign of Charles II. Yeoman (*Guide Book*, 1975; p. 46) disagrees, inexplicably assigning all of the London issues the same date (1694) as the Carolina and New England pieces. Don Taxay, however, agrees with Peck, feeling that the period 1665-85 saw their production, with the reverse legends alluding to the plague and fire which devastated London in 1665-6 (*Comprehensive Catalog*, 1971; p. 26).

According to Peck, both the London and the American Elephant Tokens were coined at the instruction of the Royal African Company, apparently from copper obtained by the Company from West Africa. The

Royal African Company was founded by the Duke of York in 1662, as the Royal Company of Adventurers. Ten years later, it was reorganized and renamed. It was highly favored by Charles II (the Duke of York's brother), and from 1672 to 1697 it enjoyed a monopoly on British trade with the African coast, a most lucrative business at the time. According to Peck, there is little doubt that the London tokens were struck for the Company (pp. 137–8). Taxay (p. 26) agrees, adding that the heavy variety of London Elephant Tokens were circulated in Britain, the lighter variety being shipped to other parts of the British domain, exclusive of the North American colonies. Many years later, the second obverse die was employed for a second series of tokens, the Carolina and New England pieces of 1694. But why this die, by then perhaps twenty years old, was reused remains a mystery.

By the time the Elephant Tokens were issued, Americans were beginning the development of what was to become the basic circulating medium through the remainder of the colonial period, paper money. The development was a slow one, and it passed through several stages, as the following article points out.

CHAPTER 8

Colonial Paper Money

John J. McCusker

A German economist, writing in 1801, summed up in one phrase the monetary history of the previous hundred years: he called it “das papierene jahrhundert”—“the paper century.” (Johann G. Büsch, *Sämtliche Schriften über Banken und Münzwesen* [Hamburg, 1801], pp. 221–230). Büsch was right. While paper money had had its beginnings in the seventeenth century, it was in the eighteenth century that it proliferated to the point that only a few countries had not at least tried it by the time he wrote. Prominent in the number that had experimented with paper money were the colonies that joined together in 1776 to become the new United States of America.

The point is made elsewhere in this book that the colonists, eminently pragmatic, used as a form of money almost everything available. Their adoption of paper money, especially given significant precedent, is not remarkable. But their experiences with it varied considerably, and their forms of paper money are deserving of study if for no other reason than the variety of those forms.

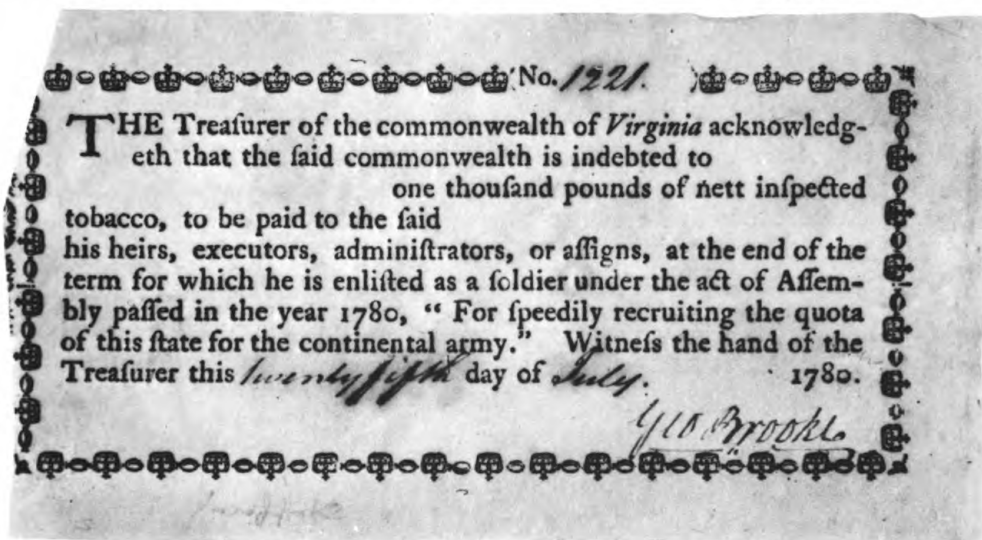
Paper money had two main theoretical attractions. It made business transactions easier. One could more conveniently accept, store, and exchange large sums of paper money than one could coins or commodities. And paper money easily increased the money supply. One had to import or to mine and mint metallic coins and grow and process commodities before they could be used as money. The product of the printing press offered obvious attractions.

One way to distinguish among various forms of paper money is to determine how they were secured. It is only very recently that many governments have decided that paper money need not be supported by being convertible on demand into something more tangible than paper, something with a “real” value. In the United States before the ending of convertibility, gold and silver stood behind our paper money. But in the colonial era, there was no federal treasury and there were no commercial bankers. The acceptability of any form of paper money depended on how easily people felt they could exchange it for something they wanted. Given these considerations, we can distinguish four forms of paper money in the colonies in the “paper century:” paper notes based on com-

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modities, paper bills of credit based on tax receipts, colonial loan-office notes, and bills of exchange.

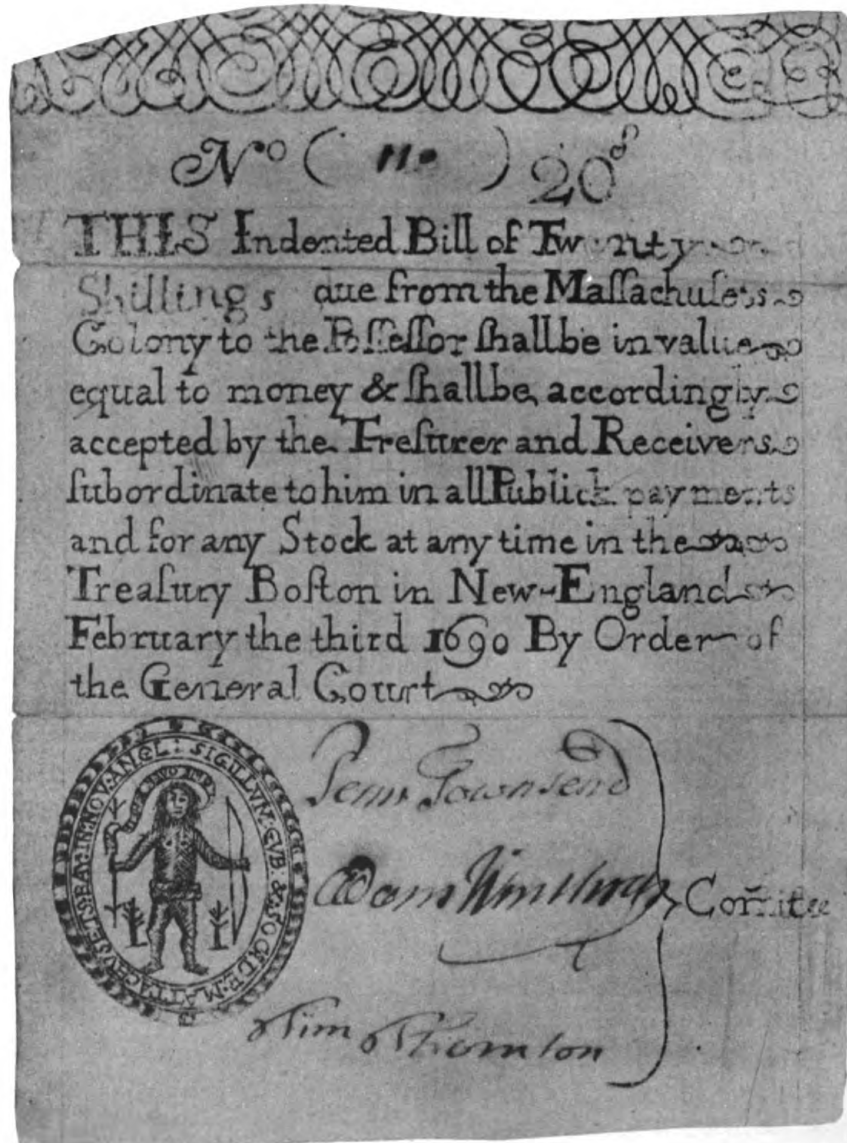
"Commodity money" was the point of departure for the first of these forms of paper money, the commodity note. From the earliest years of the seventeenth century, many colonies had sought to supplement their money supply by using certain commodities as a form of money at official values set by law. Fines, fees, and taxes were assessed in pounds of sugar in the British West Indies and in pounds of tobacco in the Chesapeake region. Other colonies used their native commodities in the same way but problems of quality control and bulk and variations in the market price interfered with this system. To overcome some of these disabilities, one colonial government, the legislature of the island of Antigua, in 1669 au-



"Tobacco Note" (Courtesy of the Eric P. Newman Numismatic Education Society)

thorized the beginning of the issuance of receipts for tobacco deposited in official warehouses. These receipts, called "storehouse notes," circulated on the island as a kind of paper money, much as modern warehouse certificates have a negotiable character. The practice ended in Antigua in 1675 when public warehouses were abolished, but their establishment in Virginia and in Maryland in the eighteenth century offered the same opportunity. "Tobacco notes" passed from hand to hand on the "tobacco coast" from the 1730's.

A lesser known form of commodity note was the "rum note." Whereas the tobacco note had an official character to it, being issued in a specific form by a colonial official as a receipt for tobacco deposited in a public warehouse, the rum note benefited only from the force of custom and de-



Massachusetts Bill of Credit (Courtesy of the Massachusetts Historical Society, Boston)

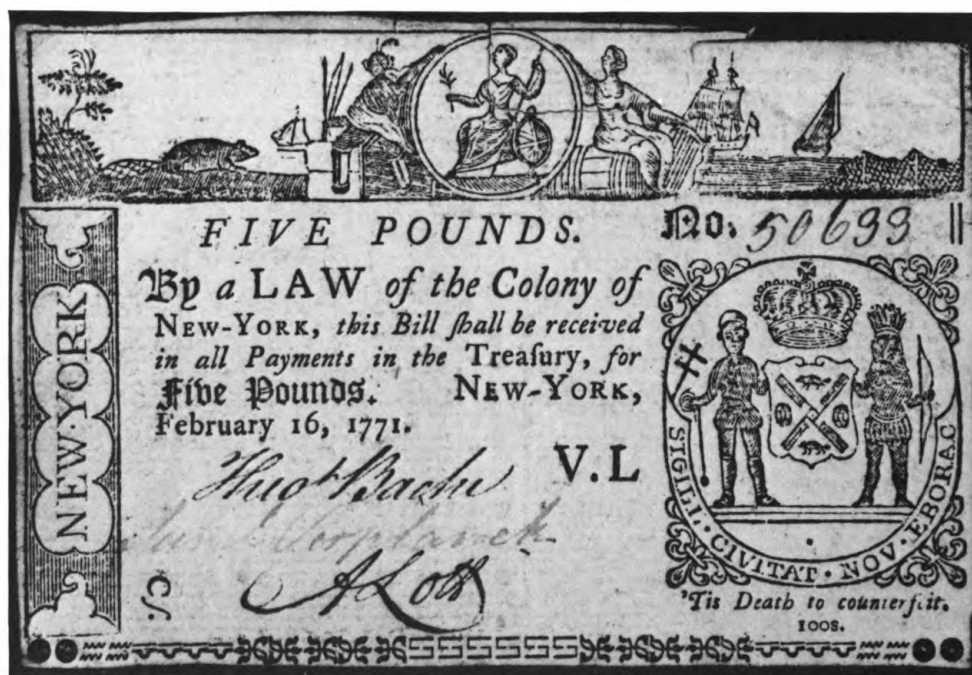
pended on the integrity of the men involved. Colonial merchants who imported molasses turned it over to distillers for conversion into rum. The merchants could then issue orders on distillers for delivery of quantities of their rum to a third party. Such orders or notes had a certain local circulation just as did the tobacco notes.

A second form of colonial paper money and the one most usually meant by these two words was the paper bill of credit. Bills of credit differed from the cruder commodity notes in several ways. They were limited in number because colonial legislatures authorized their emission only to a specific sum and usually set the number of each denomination to be issued. They were printed in full, excepting only the signature or signatures of colonial officials and a sequential numbering. They were denominated in colonial currency, almost always using English notation (pounds, shillings, and pence) in contrast to the commodity notes which were denominated in pounds of tobacco. (In this regard it should be remembered that the currencies of all the colonies differed in their value one from the other just as they differed from sterling.) But the major characteristic distinguishing colonial bills of credit from commodity notes was their widespread acceptability. Not only did they circulate freely alongside gold and silver coin in the colony that issued them but they also circulated in neighboring colonies.

The colonists enjoyed and benefited from their paper bills of credit because this form of paper money was usually legal tender for all obligations within the issuing colony and because that colony's government took it in payment for taxes. In these ways it was as fully backed as is paper money in 1976. The ultimate backing for paper money is psychological: "Can I, accepting it in payment, be assured that I can use it freely in making payment?" For the colonists from about 1720 through 1775 the answer to that question was regularly "yes." The paper monies printed by the New England colonies circulated freely among all of them until 1751. The paper monies of New York, New Jersey, and Delaware, and Pennsylvania circulated within all of them and outside of them as well, further south in the Chesapeake Bay area. The paper money of South Carolina was widely used in Georgia and North Carolina. Moreover, in these regions, a paper bill of credit, with a distinct, explicit value in colonial currency, was naturally to be preferred over any given coin, the value of which in colonial currency was uncertain or, at least, debatable. Not only did a gold or silver coin bear no indication of its value in colonial currency, but its value depended on its weight and condition, factors not easily measured by individual colonists. One can deduce the widespread acceptability of bills of credit from the knowledge they did circulate widely outside the colony that issued them. Support for this deduction can be found in the statement of at least one colonial governor who said as much. Gov. Lewis Morris might have been a bit over-enthusiastic but he spoke for more than

just the people of New Jersey when he wrote in 1741 that "the generality" preferred "the bills of credit currant amongst them, whose value they know, to silver and gold, [the value of] which they do not [know]." (William A. Whitehead, ed., *The Papers of Lewis Morris* [New York, 1852], p. 135)

None of this is meant to imply that colonial paper money was an unqualified success. There were problems with bills of credit, and, as happens too frequently, it is the problems that have attracted the most attention. To conclude from the problems that all was chaos is just as wrong as it is to suggest that there were no problems at all. The colonists



themselves recognized such difficulties and responded by trying to institute reforms. The British Parliament finally intervened, largely at the behest of British merchants who complained of the possibility of their being cheated, complaints that went back to the seventeenth century. Parliament's responses were uniformly negative, however. The Currency Acts of 1751 and 1764 merely outlawed certain forms of colonial paper money and offered nothing practical in their place. The colonists rightly considered this unfair.

One of the reforms of their paper money that the colonists attempted to introduce was a change in its backing. Bills of credit based solely on colonial laws that established their legal tender status and required that



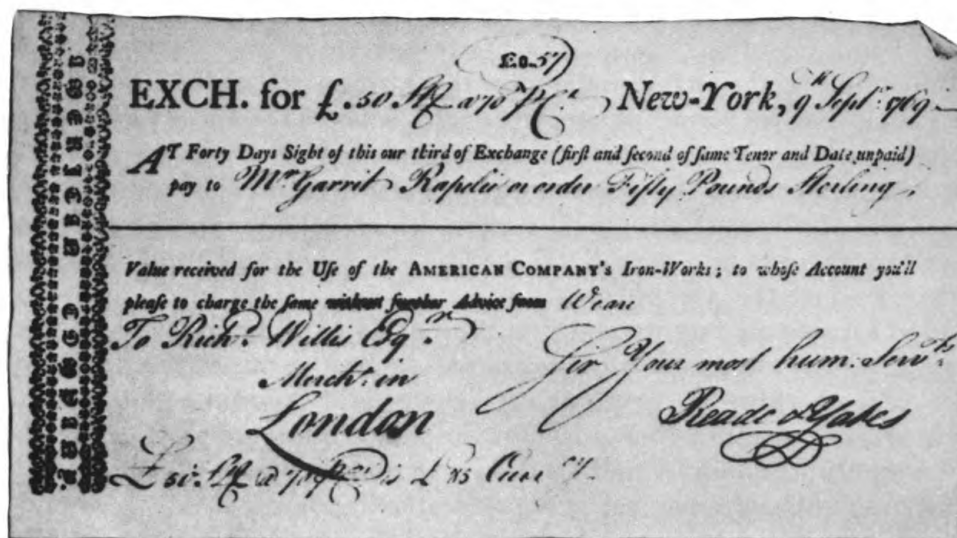
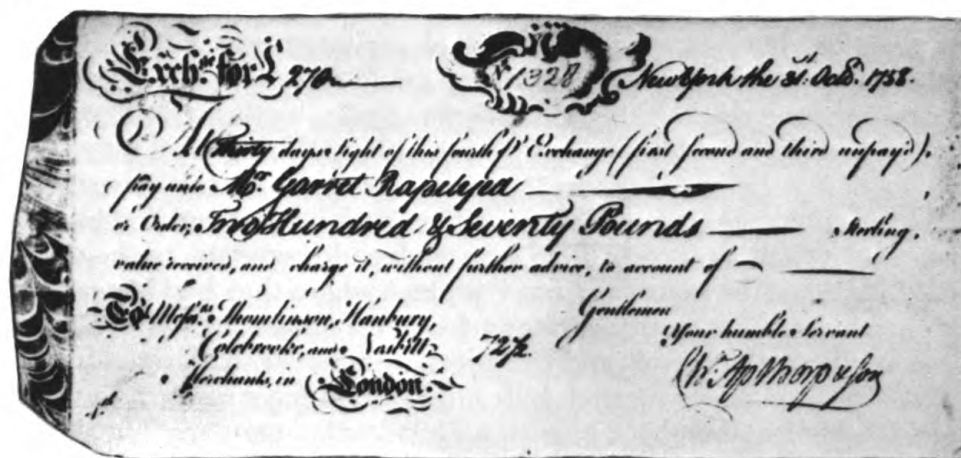
Pennsylvania "Loan Office Note" (Courtesy of the Eric P. Newman Numismatic Education Society)

they be accepted in payment of provincial taxes were prone to sometimes considerable inflationary pressures. New England paper money depreciated steadily from 1710 through 1750, as did the paper money of North Carolina; and the bills of credit of South Carolina depreciated about as much in 20 years (1710–1730) as did those of New England in 40. (It should be noted, however, that South Carolina's currency was very stable thereafter until the American Revolution and that Lawful Money in Massachusetts barely fluctuated at all from 1750 on.) In reaction to such inflation, colonists in several places thought to give sounder backing to their bills of credit through a variety of schemes. The idea of issuing paper money on loan through a public or private agency and securing this money with the collateral offered in obtaining the loan had its origin in the seventeenth century. There were several possible kinds of "loan-office notes." The most widely used agency in the colonies was the "land bank."

"Land office notes"—bills of credit issued by land banks—were the third form of paper money used in the colonies. The idea of a public loan office that would make loans to a colonist and accept as surety for these loans mortgages on his land was first tried on Barbados in 1706. The land bank made loans in its own paper money notes. These would retain their value, presumably, because they were backed by the land held as security through the mortgages. In practice, because there was no effective provision for the redemption of such notes, the scheme worked poorly. In Massachusetts in the 1740's the land office notes were caught up in the general depreciation of New England currency. Maryland's loan office, based on a somewhat different system of redemption for its notes (they were secured by stock of the Bank of England bought with money collected as a tax on exported tobacco), also ran into difficulty during the same period but was to find its paper money in much better shape in the next two decades. As a general rule, colonial bills of credit, no matter what their backing, seemed to support good times and to suffer in bad ones. More importantly, perhaps, several colonies found in their land banks a considerable source of revenue from the interest paid on the loans.

The fourth form of colonial paper money was more of a negotiable instrument than a form of money, strictly speaking. But given the perennial insufficiency in the media of exchange available to the colonists, bills of exchange did sometimes circulate and in that way were used as a kind of money. As a twentieth-century analogy, it would be a comparable situation if modern bank checks drawn against large stores and industries sometimes circulated, endorsed over to each of several successive payees. That this cumbersome and unusual system worked with some frequency in the eighteenth century indicates the extent of the difficulties that the colonists had in achieving an adequate money supply.

The usual bill of exchange involved four parties. The English colonist who purchased a bill (the payer) needed to make payment in some distant place. He initiated the transaction by buying the bill from someone (the drawer) who had monies to his credit in an account with a merchant in some other city, usually London. The drawer for his part wrote out an order directing his London correspondent (the drawee) to pay a specific amount in pounds sterling to the payer or to whomever the payer might specify (the payee). The drawer turned over the bill of exchange, in a "set" of four copies to avoid any complication through loss in the mails,



Colonial Bills of Exchange Drawn on London (As published in, R. A. Foulke, *The Sinews of American Commerce*)

to the payer in exchange for some mutually agreed sum in local currency. The payer in turn usually sent the set of bills, one at a time, to someone to whom he owed money. In London, the payee then took the first bill to arrive to the drawee, who honored it by giving the payee the sum stipulated. In practice there were many variations on this procedure; only one or two of them need concern us here.

The bill of exchange, basically a negotiable instrument for the transfer of money, became a form of money itself when it circulated for a while before being presented for payment. It is difficult to say how frequently this happened, or what geographical or temporal variations there were in this practice, but sometimes the bill of exchange was not posted immediately to the payee in London. One could endorse a bill of exchange over to someone else, making him the new payer; he then could mail it to London to a payee of his own—or he might himself endorse it over to still another new payer. Such endorsements were made on the other side of the bill of exchange (presumably on all in a set) and one can find bills, the reverses of which are nearly filled with such endorsements. In the process some bills migrated quite far from the place where they had been drawn. For instance, it was not uncommon for West Indian merchants to buy London bills in the islands and to endorse them over to merchants in the North American colonies; such bills might again have been endorsed by, say, a Charleston merchant over to a Philadelphia merchant; finally, the last man in the chain sent the bill to London to his payee there. In another variation, the trustees of Georgia issued bills of exchange in single copies—known, therefore, as “sola bills”—to be used in the colonies to pay the costs of government there. They circulated not only in Georgia but in South Carolina.

Bills of exchange that circulated in this fashion obviously differed from the usual kinds of paper money in several ways. Their face value was in pounds sterling, not in pounds currency, and that value was the subject of negotiation between the original payer and the drawer. The usual value was £100 sterling, although bills were drawn in any amount and some were for amounts less than £100 sterling. The worth of the bill in local currency—i.e., the amount paid for it each time it changed hands—depended on several factors and was a function of the market place. Bills payable at London soon after presentation by the payee to the drawee (bills said, therefore, to be drawn at “short sight”) commanded a higher price in local currency than a bill for the same amount in sterling payable at Liverpool or Glasgow and/or drawn at longer “sight.” Moreover, the reputation of the drawer was of considerable importance. Bills drawn by a known colonial merchant of recognized reputation and considerable fortune—bills more likely to be paid as agreed—sold for more than bills drawn by an unknown colonist or one whose reputation was less reassur-

ing. One could always recover the original purchase price of a "protested" (i.e., dishonored) bill but even with penalty and interest charges, the costs, possibly including court costs, and the time involved deterred many from buying bills that had circulated very far from their point of origin. Bills of exchange were therefore of only limited use as a form of money.

Nevertheless they did fulfill a necessary function in the colonial era and, of greater interest here, they have left a considerable legacy to those interested in the period. On the one hand, the ratio between the legal valuations given to coins in two currencies indicates the hard money rate of exchange between these currencies, called the par of exchange. On the other hand, the price paid in one currency for a bill of exchange gives us the commercial rate of exchange. Since the commercial rate of exchange varied constantly in response to such things as changing economic conditions, the commercial rate of exchange then, as today, was a much more reliable guide to the actual day-to-day value of a currency than was par. To know the commercial rate of exchange in London, New York, or Philadelphia is to know the real value of New York or Pennsylvania currency in relation to sterling. Since one bought bills of exchange using among other things paper money valued in currency, to know the commercial rate of exchange between currency and sterling is to know the actual contemporary value of colonial paper money.

There are numerous scholarly articles and books that deal with the aspects of colonial paper money touched on in this essay; only a few will be mentioned here. Still very useful for the early period is Curtis P. Nettels, *The Money Supply of the American Colonies before 1720* (Madison, 1934 [reprinted, New York, 1964]). A classic doctoral dissertation dating from 1941 that has recently been published in book form is Leslie V. Brock, *The Currency of the American Colonies, 1700–1764* (New York, 1975). To complete the trilogy one can profitably turn to Joseph Albert Ernst, *Money and Politics in America: A Study in the Currency Act of 1764 and the Political Economy of Revolution* (Chapel Hill, 1973). The standard numismatic guide is, of course, Eric P. Newman, *The Early Paper Money of America* (Racine, 1967; a second edition will see publication shortly). For a more extended treatment of some of the material discussed above, see John J. McCusker, *Money and Exchange in Europe and America, 1600–1775: A Handbook* (Chapel Hill, 1976 [forthcoming]).

Paper money dominated the American numismatic scene throughout most of the eighteenth century. Several wars were fought with it: the most important, the war for American independence, brought about its discredit and collapse in the early 1780's. At that time, coinage again be-

came prominent, several of the new states striking copper coins as a reflection of their new sovereignty under the Articles of Confederation. In addition, a large number of counterfeit coppers made their appearance during these years, and they found widespread acceptance along with genuine issues, so great was the American need for coinage, so great was the American distrust of paper. The following three articles examine various aspects of this copper coinage.

CHAPTER 9

Legal and Illegal Connecticut Mints, 1785–1789

Walter Breen

To determine the place of mintage of a coin is not always the simple task of looking at the mintmark. In the unmintmarked Colonial American issues, one either has to follow Crosby in relying on documents describing the coins and naming the issuing authority, or to make deductions from evidence on the coins themselves. These two procedures are similar to the two classes of evidence admissible in law: eyewitness testimony and circumstantial evidence. In both law and numismatics there is a tradition that the former is always preferable, whereas the latter more often does the hard work of establishing facts convincingly. Both classes of evidence exist for Connecticut coppers, awaiting only the necessary deductions.

Even the most casual browser in Taxay's *Catalogue* cannot fail to be struck by the great diversity of styles of heads found on the Connecticut coppers, pointing to several diemakers rather than to one, especially as several different sets of letter and numeral punches were in use. More experienced collectors have noticed that some of the peculiar heads (especially on Mailed Bust Right coins dated 1786–88) strongly suggest the busts of George III found on Machin's Mills imitation halfpence, especially as one Connecticut reverse of 1788 (Miller's die D) is actually found muled with an obverse reading GEORGIVS III. REX. (Crosby, p. 192). Then there is the still more suggestive circumstance that Miller's reverse I of 1788 is actually a Vermont die which at a late stage of its life was muled with both a 1787 Small Head Connecticut obverse and another GEORGIVS III REX obverse (the combination generally known as "Vermont Ryder 31"), whose head is identical to that on many Vermont coppers of 1787–88. Eric P. Newman has satisfactorily accounted for the latter (*ANS Centennial*, pp. 531–42). But were these Connecticut cents (and others punch-linked to them) struck in Vermont, at Machin's Mills (Newburgh, N.Y.), in New Haven, New York City, or elsewhere? And what of the rest? Can we ascertain the mintage auspices of even the majority of Connecticut coppers with reasonable certainty?

The documentation is scanty and raises more questions than it settles. Crosby (p. 223) cites a report that the Committee of Inspection (Messrs. Roger Sherman, James Wadsworth, David Austin, Ebenezer Chittenden, Isaac Beers, or any three of them) had certified as legal the manufacture

in New Haven by the Company for Coining Coppers (James Hillhouse, Samuel Bishop, Joseph Hopkins, James Goodrich, and their successors), from November 12, 1785 to June 1, 1787, of some 28,944 "Pounds Weight of Coined Coppers" after which time the firm was said to have ceased legal issue. The last three named members of the same Committee inspected and approved 10,512 $\frac{3}{4}$ lbs. of coined Coppers as of May 9, 1787, coined since May 1786 (see *ColN* 1973, p. 412). Maj. Eli Leavenworth of New York City is mentioned (Crosby, p. 209) as a private party who had made coppers in that place, "Some few of them with an Impression Similar to the Impression of the Coppers Coined by the Aforementioned Company"—though their inscriptions are not described. James Jarvis was also mentioned as majority stockholder in the Company as of June 1, 1787, "Since which Time they have ceased to Carry on said Business," (Crosby, p. 222) simultaneously with Jarvis's obtaining a federal contract (May 12, 1787) to coin 345 long tons of FUGIO coppers.

We also know that Samuel Broome, the father-in-law of James Jarvis bought a house and adjoining property in 1784 from Ralph Isaacs, on Water Street (then called East Water St.) in New Haven, a few hundred feet west of Hamilton St. (then called Townsend St.). Broome lived there until 1795. In George Dudley Seymour's map owned by the New Haven Colony Historical Society, designated "Plan of the House and Land Adjoining it Belonging to Daniel Greene, New Haven, 1815," two of the buildings on E. Water St. were called "House" and "Copper Store" respectively, a third on Townsend St. being labeled "Counting House." The "Copper Store" was identified by Edward E. Atwater (*History of the City of New-Haven*, 1887), as the mint building, with Samuel Broome as its superintendent. This is to be compared with Crosby's quoting Henry Meigs (pp. 210–11) as saying that "west of the Broome and Platt houses" was the mint building, under the superintendency of Samuel Broome, with not over three employees, who sometimes gave newly minted coppers to Meigs as a little boy (1788). The "Westville" and "Morris Cove" locations cited by Crosby (pp. 210–11, quoting Charles Ira Bushnell) are names of nearby areas but are too vague for more precise identification. The firm of Broome & Platt consisted of Samuel Broome and Jeremiah Platt, and the "Broome and Platt houses" cited by Meigs probably meant the Townsend St. counting house. Even if this were the actual location of the 1858 discovery of the three pairs of short brass dies purporting to be for FUGIO coppers, we cannot deduce from this incident whether the original James Jarvis FUGIO coppers were made there, either instead of or in addition to any Connecticut coppers.

In addition to the documentary evidence for the Connecticut coppers, the circumstantial or physical evidence takes the following forms:

1. DIE LINKAGE. In general, a coiner retained custody of the dies he

had made, and if a single obverse is found with two different reverses, it is presumptive evidence that some of the same people made both coins. However, this does not exclude the possibility of itinerant die sinkers, or at least engravers who worked for more than one mint in different years, taking some of their dies with them. Die linkage can point to the same people being involved, though it is less convincing evidence for the locale of mintage.

2. **HUB LINKAGE.** The same head punch was used on many different dies, pointing to the dies being made in the same mint, though again the possibility exists of a die sinker taking a hub to his next employment, or giving it to or using it for someone else, in exceptional circumstances. In Connecticut coppers the known hubs or device puncheons are as follows:

1785 Head to right, two versions (no legend; always hand-strengthened)

1785 Seated figure (as above)

1785-86 Mailed bust left (AUCTORI CONNEC)

1786 Seated figure (INDE ET LIB 1786)

1787 Draped bust left (no legend; several mechanically copied versions)

1787 Mailed bust left, leaves in triplets, paired berries (no legend)

1787-88 Seated figure holding a wheat ear (no legend or date)

1787-88 At least two, possibly three, mechanically copied seated figures used with Draped Bust heads (no legend or date)

These are of such diversity of styles as to suggest either different makers or intentionally different origins. I shall present evidence that all were made by Abel Buell of Killingworth and that the differences were intentional.

3. **PUNCH LINKAGE.** The same set of letter and numeral punches will be found on many different dies. As an engraver normally retained custody of his "irons" (his letter and numeral punches), the various dies sharing them can usually be assigned to one and the same engraver. A familiar example is the set of small letters including an A with upper part of left stroke missing (occasionally hand-corrected on a working die), and an N with a tiny wedge-shaped chip out of the lower edge of the diagonal. These are found on many New York, New Jersey, Vermont, and Connecticut coppers, including those linked to the George III obverses, for which reason it is assigned to James F. Atlee, die sinker at Machin's Mills, where the imitation halfpence were made. Other sets are identifiable on Connecticut coppers.

The next two criteria are a little less conclusive than the first three:

4. **PLANCHETS.** Many of the blanks used on Connecticut coppers have the same physical characteristics as those used on other coins of

known origin, evidently coming from the same melt of copper. Three such groups immediately can be discerned: (I) small, clumpy planchets, often rough and porous, found on 1787 and 1788 Small Heads (1787 Miller 1.1-A, 1.1-VV, and 1788 M. 1-I), 1788 Vermont Ryder 29 and 31, and some of the imitation halfpence; (II) the very broad flans found on some 1787 Laughing Head Connecticuts (Miller 6.1-M, 6.2-M), some 1787 Horned Busts (Miller 4-L), and some of the 1787-88 New Jersey coppers; (III) the usually laminated and often cracked or pitted blanks used for both FUGIO coppers and many Draped Busts of 1787: under microscopic examination, perfectly preserved specimens show extremely close resemblances. In general, this evidence is corroborative though not in itself conclusive. But when combined with punch linkage, it has a far better claim to be conclusive proof of a common engraver and mintage site.

5. **STYLE.** Many of James F. Atlee's portraits of George III (on the Machin's Mills imitation halfpence) show a peculiar domed treatment of the hair, all running down from a central top point. This same peculiarity is found on a few Connecticut coppers (1787 Miller 3-G, 1788 M. 2-D) as well as on the NOVA EBORAC coppers of 1787; but Atlee was almost certainly copying one of Buell's 1785 Connecticut heads (M. 6.4). Style is the most difficult element about which to be specific, and it's thus the weakest line of argument; it can be corroborative of any of the foregoing, though conclusive only in a negative sense, e.g., in ascribing an isolated variety to someone other than the regular engraver.

To untangle the problem of which mints made which Connecticut coppers, we shall have to dispose of the few easy ones first, then go to the more complex sequences, most of which are fortunately hub linked, die linked, punch linked, and struck on the same kind of planchets. In some instances we shall have to draw on evidence originally assembled in studies of other state coppers, notably New Jersey and Vermont.

The Morristown Mint

Let us first consider the two Laughing Head varieties, 1787 Miller 6.1-M, 6.2-M. They have heads stylistically unlike any others in the series; they have letters unlike any others familiar to collectors of Connecticut, Vermont, or New York coppers, but which are at once recognizable on the coins of New Jersey. These letter punches contain a peculiar wide horseshoe-shaped U found on a single restricted group of 1787 New Jersey coppers, struck on unusually wide blanks: Maris 6-D, 59-o, 60-p, 61-p, "63½-r," 64-t, 64-u, all of a remarkably coarse style. Maris obv. 6 also comes with another reverse (C), which earlier appeared on one of the



1787 M. 6.1-M; 6.2-M

1786 Date under Plowbeam coins (Maris-Breen 7-C). It is also found with a 1786 IMMUNIS COLUMBIA die (Maris 3-C; Crosby pl. VII, 17) of excellent workmanship, punch linked with the 1783-85 CONSTELLATIO NOVA coppers, which are reliably attributed to Thomas Wyon at Birmingham, England. Here we have the apparent contradiction of punch linkage and die linkage between British coppers, New Jersey coppers, and Connecticut coppers, but the explanation is known, thanks to Damon G. Douglas (see *ColN* 1968, pp. 27-31).

Walter Mould, a pupil of the Wyons, emigrated to the United States in 1786, bringing with him a variety of dies, apparently including the above-mentioned C reverse plus a punch-linked prototype of the "Coulterless" design, Maris-Breen "8½" (two specimens of this die combination are traceable, on planchets completely different from those used for the IMMUNIS COLUMBIA). Also with him was evidently the 1785 Wyon die reading IMMUNE COLUMBIA, rejected because of its grammatical error. Mould joined with two other Englishmen, Thomas Goadsby and Albion Cox, in petitioning the New Jersey legislature for a franchise to manufacture coppers to pass current in that state. On June 1, 1786, a bill was passed authorizing the three petitioners to coin 3,000,000 coppers weighing 150 grains apiece; to bear such marks and inscriptions as the State Supreme Court should direct (the horse head and shield, NOVA CAESAREA and E PLURIBUS UNUM, presumably after the patterns Mould had shown); to pass at 15 to the New Jersey shilling; and the coinage to be completed not later than June 1, 1788. For this franchise

the contractors had to pay a total of 10% (300,000 coppers) or the equivalent in current money of New Jersey in quarterly installments to State Treasurer James Mott. Each coiner was to deposit a bond with at least two sureties, binding them to the faithful performance of the terms.

For the Rahway Mint Goadsby and Cox leased Danish Marsh's grist mills on the south bank of the Rahway River, on the east side of what is now St. George's Ave. at School St. As Walter Mould proved uncooperative, refusing to aid in obtaining or constructing machinery or to file his own surety bond, Goadsby and Cox petitioned the legislature to be allowed to coin their 2,000,000 coppers independently of Mould's 1,000,000, which was agreed to on November 22, 1786. Under extreme difficulties, the Rahway Mint managed to coin its full two million coppers, the operation being hampered by several lawsuits and halted by departure of both its engravers and by Goadsby's carting off the entire minting apparatus (12 ingot molds, 672 lbs. of copper, probably strips or blanks or both, 60 copper ingots, one pair of rollers, two blank-cutting presses and the coining press). Matthias Ogden, Cox's surety, obtained a court order recovering the material, receiving it February 9, 1788. Cox spent various periods in debtor's prison, finally escaping to England; with difficulty, he was persuaded to return in 1792 to become Assayer of the United States Mint. As the operation was so unprofitable, understandably the Rahway coiners sought sidelines, one of which was the manufacture of Connecticut coppers.

In the meantime, Walter Mould somehow managed to obtain necessary backers and machinery. He filed his surety bond on January 18,



1787 M. 1.3-L; 4-L

1787, left Rahway, arrived in Morris County April 1, 1787, leased the John Cleve Symmes house, Solitude (later Holloway House) in Morristown, and thereafter began coining his own million coppers. Plagued by law-suits—in particular, by the suit of Benjamin Dudley, previously the die sinker for the CONSTELLATIO NOVA silver patterns of 1783, who had also made dies for both Mould's Morristown Mint and Goadsby and Cox's Rahway Mint (Dudley's dies appear to have been the 1786 Coulterless and possibly Maris 53-j [1787] for Rahway and for Morristown, Maris obverses 62, 63; reverses q, r, s), Mould also found it necessary to devise a sideline, and this was the manufacture of Connecticut coppers. Mould's contribution to Connecticut coinage was the Laughing Head coppers, Miller 6.1-M, 6.2-M; that they were his work is borne out by the fact that they are punch linked with his broad planchet New Jersey coppers, showing the wide horseshoe-shaped U. This punch is also found on 1787 M. 1.3-L, which adds to the group the Horned Bust, M. 4-L, with the same reverse. Some of the 4-L's and 6.1 M's come on the same kind of broad flans as the New Jerseys; others are on the smaller defective flans found on Mould's later varieties (Maris 64-t, 64-u, 65-u, 66-67-v). All four of the Mould Connecticut obverses show a small star in the base of the cuirass. Mould's Morristown Mint came to an abrupt end in July 1788, when he fled to Ohio to avoid debtor's prison, after Matthias Ogden had obtained an order in the New Jersey Court of Chancery to prevent Mould from departing after defaulting on debts due Ogden as surety in the original partnership. As Mould did manage to get away, and some of his letter punches plus his IMMUNE COLUMBIA die turned up later in Machin's Mills (in a muling with a GEORGIVS III REX die), presumably he raised the money for escape by selling his mint equipment to a representative of Machin's Mills. Douglas says that Mould died in 1789 in Ohio.

Rahway, New Jersey, and New York City Mints

We next consider the mailed bust right coins of 1786 (Miller 1-A, 2.1-A, 2.1-D.3, 2.2-D.2, 3-D.1, 3-D.4 ["3-D5" is a cast copy of 3-D1]). These are all punch-linked with each other and with the 1786 small-date New Jersey coppers with coulter (Maris 17-20, 23, 24, "21½," "23½") plus the large head 1786 NON VI VIRTUTE VICI and many later Jersey coppers. This satisfactorily establishes the die sinker as James F. Atlee, as some of these same punches reappear on his later Machin's Mill and Vermont issues. As there is no reason to assume the 1786 New Jerseys are backdated, the presumption is that Atlee (listed as "of the City of New York" in the agreement between the Machin's Mills partners and the Vermont coiners, Crosby, p. 192) worked for the Rahway establishment between November



1786 M. 1-A

1786 and June 1787. He could easily have spent his time both in New York and Rahway, if indeed he was not living in Essex County, New Jersey, during much of 1786. In any event the place of manufacture of any of these coppers made after November 1786 was most probably the Rahway Mint, while any made earlier were presumably from some private establishment in or around New York City. The dates for New York are unknown; for Rahway, the last week of November 1786 (the inception of legal operations) until about June 1, 1787, when Albion Cox was arrested and flung into debtor's prison at the suit of his ex-partners Thomas Goadsby and Samuel Atlee (who was already a partner at Machin's Mills as of April 18, 1787, though listed as "of the City of New York, as of June 7, Crosby, p. 196). As we have seen, Goadsby later carried off the entire Rahway Mint equipment, and James F. Atlee relocated near Newburgh to work fulltime for Machin's Mills, making dies for imitation halfpence and for



1786 M. 2.1-A; 3-D.1; Vermont, Cent 1786

the Vermont coiners; this left no one but Matthias Ogden to mind the empty Rahway Mint. We can be sure that any coins made at Rahway had the same purpose as those made at Morristown—to have on hand a commodity which would be readily sold without having to pay any portion to the state treasury.

Probably at least the earliest ones (1786 Miller 1-A, 2.1-A, 2.1-D.3) were made in New York in spring 1786 and later, long before the Rahway Mint became a reality; this might possibly account for a bill introduced in the Connecticut legislature in May 1786 (Crosby, p. 220) which sought to impose a fine of £10 Lawful Money on any persons convicted of importing into that state any quantity above 50 of any kind of coppers whatever, except legal issues of some state or of the Continental Congress. This passed the Assembly but failed in the Senate. Though we cannot be absolutely sure of the demarcation between Atlee's earlier New York City issues and those made for the Rahway coiners, the issues taken together were evidently extensive to account for the above bill, and the variety Miller 2.1-A is plentiful even today. The bill cited "great Quantities of base and counterfeit Copper Coin" as "already imported & circulating in this State" and therefore might have been caused by counterfeit British halfpence of foreign origin. On the other hand, the variety 3-D.1 is likely to have come later, along with 3-D.4 and 2.2-D.2, because 3-D.1 was copied by Col. William Coley in winter 1786 to produce the Baby Head Vermont coppers.

Machin's Mills, Newburgh, N.Y.

We have seen that as of June 7, 1787, James F. Atlee was the die sinker partner in the Machin's Mills enterprise, under contract to make dies on behalf of the Vermont coiners as soon as the agreement was concluded. It follows that the Connecticut coppers punch linked with these Vermont pieces but not so extensively punch linked with those of 1786 must have been made at Machin's Mills. There would have been no reason to strike them at Rupert, Vt., as they would have competed with the Rupert Mint's legal output, and Reuben Harmon Jr., mintmaster, local justice of the peace and Assemblyman, was too much in the public eye to risk trouble by issuing lightweight coins purportedly of other states. In particular, pieces punch linked to Vermont Standard Head issues came from Machin's Mills. The Standard Vermont Head is a large mailed bust facing right, one die of which reads GEORGIUS III REX (Ryder 31). Dies made from this hub were muled with dies made from either of two seated figure hubs, both with a simplified Union Jack in the shield (a peculiarity accounted for by Newman); in order of emission they are the varieties

known as Ryder 14, 12, 32, and 34 of 1787, followed by Ryder 19, 20, "37," "38," 23, "36," 22, 21, 17, 16, 25 and possibly 24 of 1788. In addition, any Connecticut punch linked to the later Vermonts no longer using the Standard Head (Ryder 27, 13 with BRITANNIA reverse, 18, 35, 33, 28, 29, 30 with inverted C in AUCTORI, 1 with IMMUNE COLUMBIA rev., and especially Miller 1-I of 1788, which mules the rev. of Vermont Ryder 25, 28, 29, 31 with the Small Head die of 1787), belong to this later issue, made in 1788 and 1789.

This enables us at least to assign to Machin's Mills the following:

Dated 1787, Miller 1.1-A, 1.1-VV; 1.4-WW; 3-G.1, 52-G.1, 52-G.2.

Dated 1788, Miller 1-I; 2-D; 3-B.1, 3-B.2, 5-B.2, 4.1-K, 4.1-B.1.

Other varieties mule an Atlee die (so identified by punches and style) with a regular die from some other source. To anticipate the story slightly, these were made in Newburgh after Machin's Mills representa-



1787 M. 1.1-A; 1.1-VV; 52-G.1; 3-G.1

tives bought or otherwise obtained possession of mint equipment from Jarvis & Co. (successors to the Company for Coining Coppers) after June 1789 when their contract was voided and from Benjamin Buell's new enterprise (begun in April 1789), even as they had earlier done from the Morristown mint in July 1788. The varieties in which this kind of muling occurs are:



DATED 1787: M. 13-D, which comes long after the muling groups 15-S, 15-F, 15-R, 9-R, 9-E, 9-D, 10-E, 11.1-E, as reverse D is much rusted with obverse 13, but not with obverse 9. Also M. 32.4-F and 50-F, both struck long after the above muling group, as reverse F is cracked and worn. Both obverses saw service in 1788 as Miller 16.4 and 17 respectively, before these "1787" mulings.



1787 M. 32.4-F; 50-F (Muled Company for Coining Coppers and Benjamin Buell dies)



1788 M.6-H; 16.1-D; 13-A.1

DATED 1788: M. 6-H (obverse obviously by Atlee, reverse from an old Jarvis & Co. hub by Buell used earlier on the last 1787-88 Draped Busts), struck after M. 16.1-H, 16.1-D by die-break evidence; M. 4.2-R, obverse also Atlee's, reverse from the Buell Wheat Ear hub (not a die known earlier); M. 9-E (same comments); M. 13-A.1, obverse from the Buell



1788 M. 9-E; 7-E (Muled Benjamin Buell and Atlee dies)

Triple Leaves hub, reverse from the same hub as H, and 8's made from S's. S was not a letter used on any legal Connecticut coins, although it was needed in GEORGIVS III. REX.

Any varieties die linked to the above but coming later by die-break evidence must have originated in Machin's Mills, a mint which operated long after all others had ceased: M. 7-E followed 9-E by reverse breakage; 7-F.2 (the obverse is 1787 11.1) came still later; 7-K and 8-K (latter is 1787.12) again later. Into the same sequence come 10-C, 12.2-C, 12.1-F.1, 12.1-E, 12.2-E, all later than 9-E. This leaves only M. 11-G unaccounted for, but although this uses old Buell hubs, it is punch linked with the Atlee dies. The only hypothesis that has merit is that Machin's Mill representatives bought up the Jarvis Mint equipment. Among the 1788 Draped Busts, M. 16.1-D, 16.1-H, 16.5-H, and 16.6-H, which is a mint alteration of 16.5-H, are linked with the abovementioned 2-D and 6-H, but followed them, as evidenced by die breaks.



1788 M.10-C; 11-G (Benjamin Buell device puncheons, dies completed by Atlee)

There are still others. In particular, as 1787 M. 32.4-F is assigned to Machin's Mills, and its obverse was earlier used in 1788 (16.4-A.2, 16.4-L.2) as well as with 1787 reverses X.5, Z.3, and Z.20, possibly some or all these were made at Machin's Mills. We cannot yet be sure which ones were, as unsatisfactory preservation of known specimens obscures die-break evidence. The same comment applies to 1787 M. 32.9-X.7, as its obverse is 1788 16.1, but we cannot as yet tell if the 1788 muling followed or preceded the 1787.

We have thus managed to assign to probable mints of issue some 40 varieties out of about 320 recorded by Miller and Barnsley. Most of the remainder were legal issues by the Company for Coining Coppers (the original franchise holders) or illegal issues by its successor firm, Jarvis & Co., the company set up to coin FUGIO coppers at the same mint site. Our main problem is to segregate the two firms—an especially difficult problem as Abel Buell made hubs and some dies for both. It is not at all certain that every one of the varieties can be assigned to its mint beyond reasonable doubt. Nevertheless, we can be certain that the 1785–86 and earlier 1787 issues were products of the Company for Coining Coppers and the remaining 1787 Draped Busts—and some dated 1788—were made by Jarvis & Co. Curiously, the illegal mint coined the vast majority of all Connecticut coppers!

The Company for Coining Coppers

Samuel Bishop, Joseph Hopkins, James Hillhouse, and James Goodrich formed a joint enterprise under this name, hiring Abel Buell of Kill-



1785 M. 2-A.1: Hand-cut dies before puncheons were created

ingworth to engrave working dies. They began operations about October 20, 1785. Because of the large amounts of coppers which they expected to issue, and the large numbers of working dies these would require, Buell (who may have gotten the idea from observing British halfpence and Spanish silver coins of the period) made a head puncheon (facing right) for the obverse and a seated figure for the reverse; this initial design was used only on coins dated 1785. The puncheons or hubs did not include inscriptions or the date. The force available for impressing these relief elements into dies was insufficient for anything of great size, so not only were dates and inscriptions omitted, but all working dies made from the hubs show evidence of hand strengthening. Most obverses of 1785 with head to right show a marked family resemblance, but the possibility of private



1785 M. 1-E; 4.1-F.4 (African Head); 6.5-M (Punch linked with African Head)

manufacture by other sources must be considered because of several deviants (especially Miller 1-E and the African Heads), for which reason we shall investigate the 27 varieties with bust right in some detail. In this study it will be necessary to disregard the Crosby-Miller order of obverses and reverses.

The first group to be considered (Miller 2-A.4, 2-A.1, 6.1-A.1) differs from all others in having borders of closely spaced, fine radial lines, a technique promptly abandoned (doubtless to save time) in favor of a punch with triangular serrations. Obverse 2 also shows a head in rounded high relief, the hair partly domed and wavy. As coins from this obverse are never well struck, Buell learned quickly that relief would have to be lower when he made his puncheon. The partly wavy, partly domed hair continues in the next groups, later simplified to straight hair, coming from a part rather than from a point. The above coins are certainly Buell's because they are punch linked and hub linked on the reverse to most of the remainder. Note in particular the A, C, E, N and T punches; the apparent bifurcation on lower serifs is a secret marking on the punches, not the result of imperfect striking (a theory demonstrated by E. R. Barnsley).

In the next groups, 6.2-F.1, 3.4-F.1 and F.2, followed by 3.3-F.3, 3.1-A.3, F.3 and L, 3.2-L, 3.5-L, 3.5-B, the obverses are hub linked as are the reverses, although this is increasingly difficult to demonstrate because every die shows signs of hand strengthening, even to the drapery around Liberty's legs. Heavier letters on some dies arise from multiple punching

in imperfect alignment.

A new head puncheon seems to have come into use thereafter, notably larger than before: obverse 5 from the previous hub links the earlier groups with the later one—obverse 6.4 with reverses F.5, K.1 and I; 4.4 and C and D, 4.3 with D, and A.2. Reverse D of this group is later found with a mailed bust obverse from the hub adopted for 1786, also Buell's work.



1785 M. 3.1-L: First device puncheons by Abel Buell; 6.4-I; Second device puncheons; 6.3-G.2: Third device puncheons

Finally there are the largest heads to right (all with hair brushed back toward neck): 6.3 with reverses G.2 and G.1, and the deviants 6.5-M and the African Heads, 4.1-F.4 and 4.2-F.6. The African Heads have an entirely different portrait, but both obverses are punch linked with 6.5, establishing a common origin for at least those three varieties; they are not punch linked with any earlier ones. It can be argued that these three varieties, along with the other deviant 1-E (period stops, with a completely different style from the others) were made by a different engraver and may even have been a product of some other mint than the legal one.

For 1786 the problem of origin is vastly simplified. Except for the New York and Rahway Mint busts to right, earlier considered, all dies are hub and punch linked and can be safely assigned to Abel Buell and the Company for Coining Coppers. The change to mailed bust left is believed to be Buell's method of distinguishing genuine 1786 coppers from the Atlee imitations (which had bust right like the 1785's). This implies that the

1785's from the bust left hub (M. 7.1-D, 7.2-D, 8-D) were made in 1786, which is not at all unlikely, especially as some of the 7.2-D coins followed some of those of 1786 with the same obverse (renumbered 4.2 for that year).

For 1786, Buell made an attempt, unprecedented in American coinages prior to 1794 when Robert Scot tried it on several half-cent reverses, to produce working dies identical because completely hubbed in all details—border, lettering, date, and central devices. The attempt failed because presses were not powerful enough to impart the design to working dies without a great deal of hand strengthening, which naturally introduced variations. Even the Philadelphia Mint did not attempt any such operation on coins of this size until 1798, when cent reverses of the "O" group (Sheldon reverses O, P, Q through Y, AA, CC, FF, GG, HH, 1799 C, all of 1800, and 1801 A, B and E) were so made, with the same result.

Buell's obverses of 1786 can be distinguished largely by details of punctuation and treatment of the base of the cuirass, the leaves, and the berries; reverses can be distinguished by details of punctuation and the



1786 M. 5.3-N; 7-K

branch and cap held by Liberty. The major deviant here is the Hercules Head, from the same hub as the rest but drastically deepened so as to produce coins in very high relief (M. 5.3 with reverses B.2, G, and N, the last two also being found with normal obverses). This may be an apprentice product (Benjamin Buell?); it reappears early in 1787 (M. 7-I).

There are two other deviants, M. 6-K and 7-K, both from the Draped

Bust hub common in 1787, with a reverse of normal type. The reason for the change of type is uncertain. In the EAC 1975 Mini-Convention catalogue (Pine Tree Auctions, Feb. 15, 1975, p. 16), I surmised that it may have had to do with identifying the coins struck during some part of the few weeks between Sept. 10, 1786 and Nov. 1, 1786 by Mark Leavenworth, Isaac Baldwin and William Leavenworth, who leased presses and other equipment of the Company for Coining Coppers from the then proprietors (the original four plus James Jarvis, who then owned 3/16 of the stock). Note that both draped bust obverses have large letters, and that obverse 7 shows a blunt star ornament punch; this enables us to identify the earlier 1787's with draped bust by punch linkage, the group being fairly sharply demarcated from those with smaller letters and cinquefoils (i.e., punch linked with the FUGIO coppers). Note also that no longer are letters or date included in the hubs.

The coins of 1787 in the aggregate form the most complex of all Colonial coinage. It will be convenient to divide those we have not already assigned to mints into the following major groups:

1. Mailed busts left. Hand-cut dies. Miller 8 and 9.
2. Mailed busts left. Triple leaves hub. M. obverses 2, 5, 10–12, 14, 15.
3. Draped busts left. Large letters. Small dates.
4. Draped busts left. Large letters. Large dates. Blunt stars and/or crosses.
5. Draped busts left. Smaller letters. Large dates. Punch linked with FUGIO dies.

Obviously falling outside any of these groups is the Muttonhead or Bradford Head, M. 1.2-C, 1.2-mm, notable for an extremely large and somewhat porcine head facing right, with a topless Liberty. Fairly early in its muling with reverse C (that most often seen) the obverse die was drastically reground, removing many details and weakening all letters; in this state it often cannot be positively read as having a Connecticut legend. C. Wyllys Betts presented one of these to the ANS in 1886 as an imitation halfpenny—apparently on the theory, which has some merit, that the alteration was deliberately done to give the piece anonymity after it had been discredited as not of official Connecticut origin. It is not punch linked with anything else in the Colonial series, and may be safely termed a contemporaneous counterfeit.

In Group 1, the hand-cut dies, obverse 8 is known with three reverses (N, O, and a.1), the last of which is also found in Group 3; obverse and reverse are punch linked with 6-K and 7-K of 1786 and with the earliest Draped Busts of 1787, which allows us to infer that all were made by Abel Buell for the Company. Obverse 9 looks like a sketch for the later Triple



1787 M. 1.2-C (Muttonheads, before and after regrinding)

Leaves type; it comes with reverses D, E and R, which are from a new reverse hub on which Liberty holds a wheat ear. Reverse R was originally cut with the date 1788, corrected to 1787; the wheat ear is altered to a bouquet. We must find a reason both for the use of this new puncheon and for its early retirement.



1787 M. 8-O

The same remark holds for the immediately following Group 4 with the obverse head puncheon having triple leaves and paired berries. Some of the dies in this group are of remarkable amateurishness—especially contrasted with the excellence of hub designs: reverse Q is blundered, 1787 corrected from 1877; reverse S has the blunder INDL for INDE; some of the others have letters unusually poorly spaced. My conjecture is that Abel Buell's son Benjamin was beginning to serve as his father's ap-

prentice by punching inscriptions into already-hubbed dies, and that when Jarvis & Co. took over in June 1787, Abel Buell turned over to them the Draped Bust device, while reserving the Triple Leaves head and Wheat Ear reverse for some later operation. In April 1789, the Committee of Inquiry found that "Abel Bewel has Gone to Europe that previous to his Departure he gave his son Benjamin Bewel Liberty to coin Coppers Which Business he is now pursuing and has Just began to Stamp them." (Crosby, p. 223) I conjecture further that some of the above-mentioned 1787 coins were the work of Benjamin Buell, and that he was promptly bought out by representatives of Machin's Mills. Benjamin may not have been the original person for whom the hub was intended. Considering that there were reorganizations of the Company for Coining Coppers during the first few months of 1787, it is quite possible that introduction of the Triple Leaves head and the Wheat Ear reverse may have signaled a later stage in these, a previous stage being identified with the hand-cut dies. We shall reexamine the Benjamin Buell question later.

In any event, all the foregoing are still identifiable (aside from the putative Benjamin Buell coppers) as legal products of the Company for Coining Coppers, as are the earliest of the Draped Busts, those with large letters, small dates, and blunt star ornaments (but no other ornaments): Miller obverses 16.1, 16.2, 16.4, 16.5, 16.6, 28, 29.1 (which is 1786 obverse 7 reappearing), 29.2, 40, 41, 42, all punch linked and hub linked, some of them die linked with the hand-cut obverse group (reverses N and O). (Miller 16.3, despite the punctuation, does not belong here, as it is from one of the later groups with small letters.) The same attribution will stand for Group 4, Draped Busts: large letters, small dates, blunt stars and crosses—Miller obverses 25 and 26, with reverses m and kk.1, both carried over from the earlier group.



1787 M. 20-A.2

With slightly less confidence we can likewise assign to the legal Company the Group 5, Draped Busts left: large letters, larger dates, the first obverse with blunt stars, the remainder with crosses: Miller 29.1-a.2 (the

obverse is 1786.7), 20-a.2, 25-b, 26, 27, 46, 47. By this time James Jarvis was a part owner of the Company. The cross punch is found on FUGIO obverse 1, and the numeral punches are linked with those found on the FUGIO cents, but so far no other punch linkage occurs. This is our tentative demarcation between the operations of the legal Company for Coining Coppers, which ceased as of June 1, 1787, and the inception of New Haven II Mint (Jarvis & Co.), set up with James Jarvis as the majority stockholder (holding 9/16 or 56¼% of the total), for the ostensible purpose of making FUGIO coppers under federal contract.

At this point we may look again at the extant records of inspection of legal Connecticut coppers by the Committee of Inspection (effectively David Austin, Ebenezer Chittenden, and Isaac Beers). As of May 3, 1787, they had approved 10,512 $\frac{3}{4}$ lbs of coppers made by the Company since May 9, 1786. At standard weight this comes to 511,036 coppers. This compares with their final report which specified 28,944 lbs. of coppers coined between Nov. 1785 (first reported Feb. 9, 1786) and June 1, 1787, that is, 1,407,000 coins at standard weight. It would be easy to subtract the former from the latter to obtain 895,964 coppers as the mintage between Nov. 1785 and May 1786, to comprise all the 1785's and the earliest 1786's; unfortunately this procedure would make the dubious assumption of no coinage between May 3 and June 1, 1787. However, we may take the figure of 1,407,000 as the total of legal coinage by the Company, ending June 1, 1787.

Jarvis and Co., New Haven

We now come to the illegal New Haven Mint, Jarvis & Co. (to give it its proper title), whose inception date may be taken as June 1, 1787, at which time James Jarvis became a majority stockholder in it. The company consisted of Jarvis (who held 9/16 of the total stock), James Hillhouse (1/8), Mark Leavenworth (1/8), Abel Buell (1/8), and John Goodrich (1/16) (Crosby, p. 222). From then on the official purpose and public rationale of Jarvis & Co. was the manufacture of FUGIO cents. They used hubs created by Abel Buell, with a sundial obverse and a reverse consisting of a chain with an inner circle reading UNITED STATES. The title, motto, and WE ARE ONE, as well as the date and ornaments were to be entered into working dies by hand. The firm actually did deliver one load of FUGIO cents (398,577 pieces in all) to federal authorities in May 1788, the consignment weighing 8,968 lbs. The shipment was intended to show good faith, for it was a small fraction of the 71,174½ lbs. of federally-owned copper which had been turned over to Jarvis for the purpose. Jarvis nominally was to pay 11¼ d. sterling per

lb. for it, but actually he paid nothing to the government. A large bribe to Col. William Duer, who obtained the coinage contract for Jarvis in the first place, was probably the extent of his payments (see Taxay, *U.S. Mint*, pp. 29–30).

For the reconstruction to follow, we begin with the following considerations: (1) The FUGIO coppers are all (aside from the Club Rays coins, which seem to have been made at another time) punch linked with the later Draped Bust Connecticuts, which we have attributed to Jarvis & Co. In particular, they use large and small fleurons and cinquefoils, none of which ornaments were earlier seen. Moreover, the letter punches of FUGIO cents are smaller than any heretofore in use and at once become standard for the later Draped Busts, and the date numerals (a tapered 7, often with a broken or rounded corner, and a large 8, sometimes open at the top) are different from those on earlier issues but become standard on later Draped Busts. It may be more than a coincidence that on the last Draped Busts—some of which have obverses used in 1788—colons are replaced by periods, as on all FUGIO obverses.

(2) The later Draped Busts are struck on the same kind of copper blanks as the FUGIO cents. Under strong magnification, uncirculated specimens of all these coins show the identical texture, with the same kind of lamination defects, entirely unlike most uncirculated examples of earlier Connecticut coppers of 1785–87 or those from other mints. As there is no other solution which fits these facts, especially considering the disappearance of the remainder of the 71,174½ lbs. of federal copper already in the hands of Jarvis, it must be accepted that Jarvis & Co. used at most a little over the 8,968 lbs. sent to the Treasury in the form of FUGIO cents for its legal purpose, illegally diverting most of the remaining 62,206½ lbs. of federal copper into making the later Draped Bust Connecticut cents. They all tend to weigh somewhat less than the 150 grains apiece called for by the Company's original franchise, and still less than the 157½ grains each prescribed for the FUGIO cents, which themselves are often lightweight (Crosby, p. 299, gives a range of 126 to 178 grains). Not enough uncirculated Jarvis & Co. Draped Busts pieces have been weighed to give a reliable range or average weight, but those weighed in studying the Stepney Hoard (brought to a New York coin firm in 1950, containing 125 Connecticut coppers, 72 halfpence, 11 Vermont coppers, and miscellaneous other coppers, evidently buried around 1790) ranged from about 112 to about 166 grains, with a mean somewhat below 136. This excludes the pieces attributed to other mints.

Even if we assume that the true mean weight for coins of this mint was as high as 144 grains (and it is likely to have been less) and that the entire 62,206½ lbs. of federal copper was coined into Connecticut Draped Busts of 1787, possibly along with those among the 1788's which could not have

been made in Machin's Mills, this yields approximately 3,024,000 coppers. The true amount may have been a little lower, if a few tens of thousands more FUGIO cents were made besides those delivered to the federal authorities, or a little higher, if the true mean weight was below 144 grains. But an estimate of three to 3½ million coppers from Jarvis & Co. should be about correct. It also fits the observed data: Jarvis & Co. Draped Busts with small letters are somewhat more than twice as frequently met with as any other Connecticut.

As for why Jarvis & Co. decided on this illegal course of action, the answer is obvious enough. The first batches of FUGIO cents, which we may take to be those with the cross after date, circulated very little: their unfamiliar design was a handicap, as had been the Sun and Mountains design on the 1785-86 Vermont coppers (in the latter case, no other cause would have accounted for Reuben Harmon's petitioning the legislature for permission to change the authorized design to one closely imitating the largely counterfeit British halfpence of George III then in circulation). As there would have been no purpose in continuing indefinitely to strike and vainly attempt to spend unfamiliar coppers which would tend not to be accepted because of their new design, we may conclude that, after Buell and his apprentices had completed some 24 pairs of FUGIO dies and approximately 80 cwt. (or just under 400,000 coppers) struck from them, some attempts were made to pass the new coins along with other coppers, but that the vast majority were weighed, bagged, and shipped in mid-May 1788 to the Treasurer of the United States.

What could then be done with the remaining 27½ long tons of federal copper in storage somewhere near the East Water St. "Copper Store?" What was to be done with the remaining die blanks? During Jarvis's prolonged absences in the fall and winter of 1787/88, his father-in-law Samuel Broome ran the mint, and there is no reason to believe he would allow it to remain idle. We may therefore credit him with the decision to strike Connecticut coppers of the design which was already an accepted coin throughout the state. And so Abel Buell made several head and seated figure punches. He probably did so by means of a mechanical transfer from the late 1786 originals, as the new dies are identical except for showing diminishing detail of hair, leaves, and drapery. This could be done with the same press which was used for the actual striking of the coins, after which apprentices and other workmen punched in the legends, ornaments, and dates.

I conjecture that the use of cross, scroll, fleuron (large and small), and finally cinquefoil punches for ornamentation on working dies may have been a continuation of the quality control methods introduced by Abel Buell for the Company. Each ornament punch combination would identify a given working die as the work of one die sinker, just as earlier

device punch changes had been intended to designate successive organizational stages or lease-outs of the Company. There are the following major divisions, which show every indication of being intentional:

- I. Cross ornaments on reverse only: obverse crosses or, later, fleurons.
- II. "Composite ornament" after INDE: pellet, large fleuron, small fleuron, leaf.
- III. Cinquefoil ornaments only: at first with colons, later with periods.

The evidence of die breaks, too complex to cite in detail, but partly described in the Pine Tree Sale, February 15, 1975, indicates beyond a reasonable doubt that the above chronological order of the three groups is correct. This is confirmed by the evidence of numeral and letter punches, the same letter and digit punches being found unbroken on what are assumed to be early dies in these groups, and chipped or replaced on later ones. There are a few intermediate varieties, muling old dies of one group with new dies of the next, plus a very few which com-



1787 M. 17-G.3: Group I, Cross ornaments

bine Jarvis & Co. dies with old Company reverses (M. 37.6-B, 37.8-LL, 37.12-LL, which come long after all other known combinations using any of these dies; these are thought to have been made at Machin's Mills). However, with those exceptions, the three groups are remarkably and sharply distinct. Interestingly, the earliest dies of Group III show that the cinquefoil ornaments were mostly altered from crosses, (M. 33.30 and EE, SS and TT. This obverse was originally of type 19; the reverses of type g) a procedure which would have had no other purpose than designating different auspices under which the coins were made. If they were merely arbitrary, nothing would have been simpler than to issue the coins from the dies in their original form.

The tendency of Connecticut collectors to use the old Crosby-Miller order of varieties (which emphasizes blundered spellings and omitted colons or ornaments) has obscured these fundamental and evidently

intentional divisions. Group I, Miller obverses 17, 18, 19, 21, 22, 24, 38, and 45, with reverses of types g, DD, FF, GG, CC (and obverses 48 and 53, which are early fleuron dies, coming only with reverses of this group), form a well-circumscribed sequence, though evidently a brief one, as the number of dies was small and most broke quickly in use.

Group II (composite ornament reverses) comes with a variety of obverse ornaments, eventually standardizing at four small obverse fleurons. I conjecture that these, with the other ornaments in the legend in addition to the standard composite ornament, reflect the fact of



1787 M. 37.4-K.1: Group II, Composite reverse ornament

different workmen having completed the dies. As obverses 38 (the AUCIORI) and 48 come perfect with Group I reverses and shattered with Group II, Group II must come later than Group I. In addition to 38 and 48, the obverse types are 16.3 (no ornaments), 34 (large fleuron), 37, 39, 36, and 56, being a total of 22 working obverses, with 18 reverses in this group, suggesting a somewhat longer period of issue.



1787 M. 32.3-X.4: Group III, Cinquefoil ornaments with period stops

Group III (cinquefoil ornaments only) is by far the largest of all, some 53 obverses with colons being muled with 54 reverses with colons. In addition, ten dies with periods (types 32 and 43) come with nine reverses (types Y, X and aa) with periods, plus two old cracked dies with colons

(Z.3 and Z.20); these latter mulings may have been made long afterward, perhaps at Machin's Mills. One of these reverses (Miller aa) clearly shows IN of INDE corrected from FU, proving that an apprentice die sinker had just been working on a FUGIO obverse. (This has been disputed, but a specimen in the Pine Tree Sale, February 15, 1975, is sharp enough to render such a conclusion beyond doubt.) We have already seen that the FUGIO obverses come only with periods, like these last Connecticut dies, suggesting that the same apprentices completed both—perhaps in the spring of 1788.

One of the two obverses (Miller 32.8) with this reverse aa has larger letters than any foregoing, from a completely new font, and it continued through most of the Draped Busts of 1788, reappearing as 1788 M. 16.4,



1787 M. 33.20-Z.9: Group III, Cinquefoil ornaments with colon stops

and suggesting that some of the 1788 Draped Busts were made by Jarvis & Co., the remainder being ascribed to Machin's Mills along with most of the Mailed Bust Left and all the Bust Right coins of that date.

Group III of 1787 forms the majority of all Draped Busts, the majority of all 1787's, and a somewhat smaller majority of all Connecticut coppers. We may be sure that much the same spirit actuated Jarvis & Co. in late 1787-88 as had motivated Hull and Saunderson in the Boston Mint in 1675-82, when the eventual certainty of detection in illegal coinage induced both mints to quadruple their output in accordance with the proverb "better be hanged for a sheep than a lamb."

In confirmation of this view that eventual detection of the misappropriation of federal copper was certain, one need only look at the singular behavior of Abel Buell, who already had a cropped ear and a brand mark as a souvenir of an earlier brush with the law for altering low value Connecticut notes of 1762 to 30s notes (see Newman, *Early Paper Money*, p. 67). After the FUGIO operation ceased, Buell appears to have spent very little time at the mint, as the later Draped Busts show a remarkable contrast to the earlier ones—blundered dies are commonly found, whereas they were previously very unusual. Henry Meigs testified that on

numerous occasions when he and other little boys visited the mint in 1788, only Mr. Broome and not over three workmen were on hand, which must have meant two to operate the weighted arms of the press and a third to feed the blanks into the press for stamping. On September 16, 1788, Congress voided the defaulted Jarvis contract on grounds of nonde-



Fugio Cent 1787

livery of 345 long tons of FUGIO coppers (which would have been over 34 million pieces at the stipulated $157\frac{1}{2}$ grains weight). This left Jarvis & Co. with no further legal reason for existence, although Buell retained an eighth share of the original Company for Coining Coppers franchise. Fearing that federal authorities would come to question him about the remaining federal copper (in the misappropriation of which Buell might have been chargeable as a coconspirator), on January 21, 1789, Abel Buell deeded his house to James Jarvis and turned over his share in the coining franchise to his son Benjamin at about the same time, doubtless believing that young Benjamin would not be implicated (see L. C. Wroth, *Abel Buell of Connecticut*, p. 24). Abel left for Europe, not to return for two years; Benjamin began striking coppers not later than April 1789.

Benjamin Buell's Mint

The report of the Committee of Inquiry mentioned that Benjamin Buell had just begun to strike coppers as of April 1789, at an unstated location. To make any coins at all he must have had dies; to strike any quantity of legal coppers, as planned, he must have had legal puncheons for multiplying dies. Abel surely would have wanted his son's coppers to be distinguishable from the illegal ones of Jarvis & Co. The obvious solution to the problem of how to identify Benjamin Buell's coppers, then, is to assume that Buell gave his son puncheons which had not been used since the inception of the Jarvis & Co. operation—the Triple Leaves head and the Wheat Ear seated figure, with any still usable old dies from them



1787 M. 2-B; 15-F

(dies of 1787 which, it will be remembered, mostly had a markedly amateurish look about the lettering, in contrast with excellence of devices). We may also assume that most of Benjamin Buell's coins would have been dated 1787 rather than 1788, as he would surely have remembered that the legal Company ceased operations in June 1787, a fact ignored by Jarvis & Co. and probably unknown to the Machin's Mills people. In this connection, recall that reverse R of 1787, which comes from the Wheat Ear hub, was originally dated 1788, but that the final 8 was altered in the die to a 7. We have already ascertained that all the 1788-dated coins with either obverses or reverses from these hubs were made by Machin's Mills. This leaves only the 1787-dated group, M. 2-B, 10-E, 11.1-E, 11.2-K, 11.3-K, 14-H, 5-P, 12-Q, 15-F, R, S, some of which may have been actually struck in 1787. These are tentatively ascribed to Benjamin Buell. Were anyone to ask why his coppers were dated 1787, the answer was readily at hand: these were old dies legally made by his father under the Company for Coining Coppers, given to Benjamin on Abel's departure for Europe, when Benjamin received the deed entitling him to his father's remaining legal power to coin coppers.

The operation could not have been of great volume, as all these varieties are scarce, most very rare. It would have been legally estopped as of June 20, 1789, when the show-cause order mentioned earlier effectively ended all mintage of coppers in Connecticut. Shortly afterward, the copper panic in New York City caused all such coins to fall to a fraction of their former value, and afterward only Machin's Mills continued to make coppers of any kind.

There is no further information about Benjamin Buell's activities, although we can be certain that some time between April and June 1789 he was visited by representatives of Machin's Mills with an offer as were the proprietors of Jarvis & Co. This is the only explanation for Buell's hubs and dies turning up later on 1788-dated coins issued by Machin's Mills. Recall that the mulings of obverses 11.1 and 12 of 1787 (alias 1788 obverses 7 and 8) with the 1788 dies came long after their 1787 combinations, and that Atlee used these old device punches to make other Connecticut dies also dated 1788. It is even possible that the cessation of Connecticut copper coinage in June 1789 was the very occasion for Machin's Mills representatives buying up otherwise useless mint equipment.

Without any deliberate intention, the proliferation of makers of Connecticut coppers, legal and illegal, contributed to the 1789 discredit of even legitimate coppers, just as the proliferation of British counterfeits of Continental Currency under Generals Howe and Clinton helped discredit the genuine paper.

CHAPTER 10

American Circulation of English and Bungtown Halfpence

Eric P. Newman

The English halfpenny had the distinction of being the most actively circulated coin in what is now the United States, both during the Colonial period and for more than a quarter century after American independence. Large quantities of these copper coins and some farthings provided the means for the ordinary man to conduct small transactions as he advanced from a barter economy. Most of these pieces were privately imported. Once put into circulation in America, they were not withdrawn by government and therefore became subjected to extensive wear from steady use. Since coined foreign gold and silver circulating in America, including English issues, had international acceptance because of their intrinsic value, the English halfpenny, once it came to America, was not exportable as a practical matter, even to England. Halfpence were subsidiary coinage which was costly to produce and to transport in relation to its intrinsic copper value. The halfpenny circulated in England and in America at rates above its intrinsic value and therefore others had almost no interest in it. In America it circulated at different rates from colony to colony and the mother country did virtually nothing to supply, regulate, or control it. Its uses, its varying values, its abuses, its counterfeits and its American regulation were conditions with which Americans continually had to cope.

The Background of English Copper Coinage

Official coinage of copper halfpence and farthings in England began in 1672 under Charles II, and the copper tradesmen's and city tokens, which had theretofore supplied most of the public's needs for small change, were driven out of circulation by governmental proclamations issued August 16, 1672, October 17, 1673, and December 12, 1674. The regal copper coinage was legal tender only to the amount of 6 pence, since its intrinsic value in copper was only about half of its circulating value. Forty and then forty-four halfpence weighed one pound and were made of pure Swedish copper. In 1685 James II authorized Thomas Neal

and others to make regal halfpence and farthings out of tin with a small square plug of copper in the center. The weight returned to 40 to the pound but due to the differential in the price of tin and copper the profit was sufficient for the coiner to pay the Crown 40% of the coinage for the privilege of coining. After trying to popularize tin coinage under James II, there was a return to copper coinage during the reign of William and Mary, when the weight of halfpence was reduced to 42 to the pound. William III continued such coinage from 1695 to 1701 in such quantity that no coinage of copper was needed during the entire reign of Queen Anne (1702–1714). The weight of copper in English copper coinage reached a minimum in 1717 when coinage was resumed under George I with 46 halfpence made out of one pound of metal. Apparently the minting costs and the price of copper were at that time still too high to make it worthwhile to counterfeit copper coins.

Copper coinage under George II began in 1729 on the same weight basis and large quantities were coined from year to year until 1754. "The forgeries of copper coins during this reign were conducted on a most alarming basis, and formed the subject of much complaint. Petitions were presented to the King in Council, and amongst other suggestions was one to the effect that the nominal value of the coins should be reduced by one-third, it being clear that the forgeries were due to the great difference between their nominal and intrinsic values" (H. Montagu, *The Copper, Tin and Bronze Coinage and Patterns for Coins of England*, 1885, p. 55).



Great Britain, Halfpenny 1774

During the reign of George III the official coinage of copper was resumed from 1770 to 1775 at the same weight. To complicate matters, one genuine obverse die of 1772 misspelled GEORGIUS as GEORIVS in similar fashion an error in a 1730 issue of George II. The counterfeiters stepped up production, not only with accidental spelling errors of their own, but with coinage dated in advance of the distribution of official issues. This caused some amusement in 1776 when the counterfeiters produced coppers bearing that date even though the Royal Mint did not

issue any. The Royal Mint had given up the minting of copper coins and did not revive it until 1797.

Counterfeiting of copper coins in England was historically subject to separate regulation from counterfeiting of gold and silver coins. Gold and silver coins were intended to circulate virtually at their full intrinsic specie value while copper coins were intrinsically worth less than half of the value for which they passed. The cost of manufacture of copper coin was naturally a much larger percentage of its circulating value than that of coins made of precious metals, thus causing a necessary gap between the intrinsic value and the circulating value of copper.

The problem of preventing circulation of counterfeit coin in eighteenth century England required consideration at separate levels. It was readily recognized that an average person possessing counterfeit copper coins usually did not know genuine from counterfeit and could not be held responsible for passing a coin he received. Bulk distributors to the public were often shopkeepers who constantly needed coppers to make change and who, therefore, were tempted to buy counterfeit copper coins at a substantial discount from their circulating rate. By the necessities of trade, these shopkeepers were forced to accept whatever genuine or counterfeit copper coin the public had to spend, and they were therefore always in the position to claim that any counterfeit coin they had on hand had been paid in by the public. The counterfeit manufacturer was the only satisfactory point at which to prevent the circulation of counterfeit copper coin.

A special statute applicable to the coinage of counterfeit copper was passed in 1742 entitled "An Act for the more effectually preventing the counterfeiting of the current coin of this Kingdom and the uttering or paying of false or counterfeit coin" (15th George II, Chap. 28.).

The 1742 statute created a penalty for being "a common utterer of false money"—which was defined as one who passed counterfeit money knowing it to be counterfeit and had more on his person, or one who passed counterfeit money twice in ten days knowing it to be counterfeit. The statute specifically provided a penalty for striking counterfeit copper money. "False money" was construed not to include copper coin and thus there was no penalty for passers (Thomas Snelling, *A View of the Copper Coin and Coinage of England*, 1766, p. 45). The penalty for coining counterfeit copper was limited to a maximum imprisonment of two years. Any person convicted under the 1742 law and who had not as yet gone to jail was "intitled to his Majesty's most gracious pardon for such of his or her offenses" if he would disclose the evidence to convict two or more persons who also violated that law.

The enforcement of the 1742 law was not effective to prevent counterfeiting copper and the continued production of such counterfeits went unabated. By a proclamation of July 12, 1751, the King ordered his

representatives to enforce the 1742 law against counterfeiters and utterers (Snelling, p. 44). People in the upper economic classes were little affected by bad coppers, whereas the poor were often paid wages in false copper and suffered losses when it was discounted.

The copper in some of the English counterfeits was as pure as in the regal coinage. There was often no practical difference in weight and the counterfeit dies for some pieces were almost as well made as those for the genuine coinage. In those cases the public was not actually prejudiced as to intrinsic value by the acceptance of counterfeit coins instead of genuine ones. Private enterprise merely made the profit from the manufacture and distribution of counterfeit copper instead of the government making a similar profit from minting genuine coins. In the case of light-weight false copper there was a definite loss to the recipient. Since it was easier to strike or cast copper mixed with lead and other soft metals, counterfeits of mixed metals were commonly produced. A combination of short weight and adulteration of copper with base metals gave the counterfeiter the most profit and was thus a common practice. There was no public cooperation in the enforcement of the counterfeiting laws as to copper coins. From time to time storekeepers would refuse to accept counterfeit copper at par and on February 19, 1753, when it was estimated that over 40% of the copper in circulation in England was counterfeit (Snelling, p. 44) there was temporarily a general refusal to accept false coppers on any basis.

Turnpike gatekeepers were known to refuse counterfeit coppers at one gate and put identical copper in circulation as change at the other. (Colquhoun, *Treatise on the Police of the Metropolis*, 1800, p. 198).

The factories which had equipment to make copper planchets openly sold such copper in the shape and size of halfpence, pretending the merchandise was for buttons, harness decorations, export, etc. All the coiners needed was a means of heating the planchets and crude dies for stamping them. There was needed only a weakly struck product as it then took on an older look. "It was a common practice of the dealers in this article to fry a pan-full every night after supper for the next day's delivery, thus darkening them, to make them look as if they had been in circulation." (R. Southey, *Letters from England by Don Manuel Alvarez Espriella*, II, London, 1808, p. 62). The counterfeits were sold to wholesalers at about one-half their circulating value and then redistributed to merchants and smashers (passers of counterfeit coin) at about one-third discount.

In 1751, a means of evading the law of 1742 was put into practice. This was to prepare dies with legends or designs which deviated from the standard regal 1/2d or 1/4d. In this way the coiners could show that their products were deliberately distinguishable from regal coinage and were not counterfeits. These pieces were technically referred to as evasive halfpence in the eighteenth century (Colquhoun, p. 197), and that name

has been used to distinguish them from plain counterfeits. These evasions were few in number until 1771, when a new statute to prevent counterfeiting of copper coin made the offense a felony instead of a misdemeanor. The buying or selling of counterfeit copper at a discounted value also became a felony. Because it was immediately noticed that evasions were not specifically covered by the new statute, quantities of evasions dated 1771 appeared. These evasions continued to be produced until at least 1797, as their references to people and events indicate.

The 1771 law against distribution of counterfeit halfpence at wholesale prices resulted in quantities of counterfeit halfpence being shipped to America. However, the 1771 law was not effective in England and enforcement was customarily ignored. The English had adopted an attitude of regarding the coining of false copper money as a necessary evil.

It has been said that genuine English copper coins were melted down in order to make lightweight counterfeits. This practice was said to increase the proportion of counterfeit copper in circulation. This was an excuse and could not be true because copper could be purchased in bulk much cheaper than by obtaining genuine coinage at face value.

English Copper Coins in America

The effect of the circulation of large quantities of unauthorized coppers in England naturally had a substantial impact on what circulated in the American colonies. Since the mother country was unable to exercise reasonable regulation and control over her own copper money conditions, the English made even less effort with respect to the copper currency problems in America.

Copper coin was ignored when Queen Anne, by a proclamation dated June 18, 1704, undertook to regulate the circulating value of all foreign silver money current in the English dominions in America by directing that in any payment of obligations contracted after January 1, 1705, no premium should be given for silver coin over a scheduled value. Because of the desire of the colonists to use silver coin in lieu of barter items, or to expand the use of paper money, and their continued willingness to pay a premium for silver coin, this proclamation was subsequently enacted by Parliament into an enforceable law effective May 1, 1709 (6th Anne, chap. 57, 1707), without mentioning copper or gold coinage.

At that time small change was scarce in America and a critical economic need. Small transactions could not be quickly handled because proper change was not always available. Genuine English and Irish coppers composed whatever minor coins were circulating in America.

There had been a few small-scale attempts by private interests to solve



Mark Newby New Jersey, St. Patrick Halfpenny

the problem of small change. Mark Newby brought to New Jersey Irish copper halfpence known as "St. Patrick pence" which were officially authorized for use in New Jersey in 1682 on his promise to redeem them. During the reign of James II (1685–88), when English mined tin was cheaper than copper, a tin farthing for the American plantations bearing the denomination of 1/24th real and being the size of an English halfpenny, was struck, but was refused in America. A very few half-penny-size tokens for Carolina and for New England, featuring an elephant on the obverse, were privately minted in England in 1694 and weighed only about 160 grains each in comparison with similar elephant tokens made for English use which weighed over 25% more.



Great Britain, 1/24 Real for the American Plantations 1688

The first official reaction against short weight and unauthorized minor coins in America seems to have taken place when the General Court of Massachusetts on March 12, 1700, passed "An Act against making or passing the Base or Counterfeit Money (12th & 13th Wm. III, Chap. IV; *Acts & Laws of his Majesty's Province of Massachusetts Bay in England*, 1759, p. 119) the preamble of which states:

Whereas some persons for private gain have of late presumed to stamp or emit Pieces of Brass and Tin at the rate of a penny each, not regarding what loss they bring on others. . . .

The act required the coins to be redeemed by the issuer and provided penalties for making or issuing any metal, matter, or form to pass as pence or at a greater or less value. These coins have never been identified nor has it been determined whether they were of English or American origin.

In an anonymous letter written in 1720 at Boston and opposing further issue of paper currency, it was pointed out that because of paper money depreciation, merchants had bought up English halfpence in Boston at 14 pence in bills for 12 halfpence. These halfpence which passed for a penny in New England were insultingly referred to as counters and shown to be worth only a halfpence if sent back to England. (*Colonial Currency Reprints*, I, p. 418). An export of halfpence took place shortly thereafter just as the letter had warned, as an entry in the Journal of the House of Representatives of Massachusetts for June 15, 1722, noted that copper halfpence were being sent out of the province.

The complete disregard by the English for the welfare of America as to copper currency was evidenced by the grant on July 12, 1722, of a patent to William Wood of Wolverhampton, England, to coin special twopence, pence, and halfpence exclusively for the dominions in America for a period of fourteen years. The coins resulting are the well-known "Rosa Americana" series. A similar patent was granted to Wood at the same



Rosa Americana, 2 Pence 1723

time to coin special halfpence and farthings for Ireland. All of the coins were to be made out of a mixture of copper, zinc, and a trace of silver. It is surprising to note that 96 halfpence of the American issue were to weigh one pound, when English halfpence of George I weighed 46 to the pound. The differential in the exchange value of the monetary units between the American colonies, Ireland, or England did not affect this discriminatory weight basis, because it was provided that these denominations were in English exchange and adjustments for the variation in the circulating value due to American or Irish exchange differentials were also allowed. This meant that a Rosa Americana halfpence should circulate in America for the same amount as an English halfpence which weighed over twice as



Rosa Americana Pence 1722; 1723; Halfpenny 1722

much and which then circulated at about twice its intrinsic value. Both were supposed to circulate for one penny in the money of account in New England.

It is well known that the coinage franchise was obtained through favoritism toward the beautiful Duchess of Kendall, who came from Germany to England with George I, and who was an influential contact for William Wood. It was no wonder that the coins were to be so light, as, in addition to paying the King and the King's Controller an annual royalty, Wood seems to have agreed to pay the Duchess a fee of £10,000.

As an admission of the inadequacy of the effectiveness and enforcement of the general counterfeiting laws of England under which Wood's coinage was to be protected by the terms of the patent, Wood and his agents were also given the right to search any ship or building in America during the day and with a constable in attendance and to confiscate any counterfeits or any counterfeiting tools, without making any report what-



Wood's Coinage, Halfpenny 1722

soever to public authorities.

Wood's coinage was not a legal tender and the coins were to be "received as Current money by such as are willing to receive them." The people of Ireland had previously taken an irate attitude because of the weight of Wood's Irish coins and completely rejected the coinage, spurred on by Jonathan Swift's *Draper's Letters*. In New England, where Wood's Rosa Americana issue was introduced, there was a much greater justification for rejection, both on account of weight of the coins, and because they were not pure copper which had a commercial use. Massachusetts in 1722 issued 1d, 2d, and 3d paper currency to counteract the introduction of Wood's Rosa Americana coinage. Wood was therefore unable to put more than a small amount of his coins in circulation. This attempted scheme soured the Americans permanently against any coppers minted privately whether with or without official sanction.

About 1725, the comparative conditions of copper circulating in England, Ireland, and America was explained from an Irish point of view as follows (parenthetical portions added):

Our (Irish) Traders suffered prodigiously and for a long Time by our former Coinage of Copper. For it is not here (in Ireland) as in England where if they be overstocked with Halfpence, it is only sending them to the English Plantations (in America) where they pass for Pence. Halfpence there (in the American Plantations) are a good commodity. We had this trade once, which freed us from the Load of Copper Money which we laboured under. But that Trade is now over, for our (Irish) Halfpence will not pass above their Intrinsick Value in the (American) Plantations (Crosby, p. 165).

The American public had become prejudiced against any coppers lighter than English coin and against any coin which had obvious impurities; nevertheless, English copper halfpence and farthings continued to circulate far in excess of their intrinsic value. This overconfidence in English copper coinage left the American colonies highly vulnerable to counterfeit halfpence.

The English copper halfpence, because of their various circulating values in the American colonies, were not, for practical reasons, referred to as halfpence and were commonly called coppers (Crosby, pp. 207, 221). Bread, which was regulated as to price and weight, and had been known as a penny loaf, or a two-penny loaf, was sometimes called a "two copper biscuit" (*Newport Mercury*, March 6, 1784). Silk knee garters were ten coppers per pair and mohair two coppers per skein in Boston (*Newport Mercury*, January 19, 1786). Inspectors of fire or cord wood were to receive "eight coppers for each load" (New York City Ordinance of July 21, 1789).

Regulation of Halfpence in America

Some of the American colonies specifically attempted to regulate the use of British halfpence in their jurisdictions rather than let economics govern such circulation.

NEW YORK

While some American colonies were complaining about the scarcity of copper coin, the colony of New York, by an act passed December 16, 1737 (Livingston & Smith, *Laws of the Colony of New York*, I, Chap. 655), endeavored to protect its people against too much copper coin being put into circulation. The preamble of the Act describes copper currency conditions as follows:

Whereas for some years passed great quantities of English copper half pence and farthings have been from time to time imported into this colony which have been and are paid and received in the Markets and other payments by Common consent of the People at a higher rate than their *Intrinsic* Value and

Whereas by the Conveniency of such copper money passing in Small payments the Importation of the Same is still continued.

The law went on to provide that any person bringing into the colony more copper money than 10 shillings' worth would make it subject to confiscation, one-third going to the informer. This legislation was directed primarily at genuine English copper coins because counterfeit copper coins were not a material problem at that time.

A major complaint about the importation of genuine British halfpence took place in New York City in 1750. The *New York Post Boy* of September 10, 1750 carried a letter expressing the opinion of many merchants that, due to the failure to regulate the value of halfpence to a point to discourage importation, the New York merchants should cooperate as merchants had done in Philadelphia. The halfpence were circulating in New York at 12 to the New York shilling (8 New York shillings = 1 Spanish dollar); in Philadelphia at 15 to the Pennsylvania shilling (7½ Pennsylvania shillings = 1 Spanish dollar); and in Boston at 18 to the New England shilling (6 New England shillings = 1 Spanish dollar). This gave New York a 17% disadvantage as to Philadelphia and a 12½% disadvantage as to Boston, so that it was worthwhile to send halfpence to New York from either place. To discourage this unnatural flow of halfpence there was a proposal to set halfpence at 14 to the New York shilling to prevent export or import of halfpence. While it was mentioned that there would still be a 3½% theoretical advantage to export halfpence from

New York to Boston it was shown that selling commodities there would produce more profit. Nothing appears to have been accomplished at that time.

When the flood of counterfeit George II coppers were circulating in England just after the middle of the eighteenth century, the refusal of the merchants to accept them became widespread and the counterfeit coppers were shipped to America in quantity. In 1753 an examination of a bag of coppers in New York showed 30% were counterfeit and many of the counterfeits were cast in sand. Many weighed only 84 to the pound instead of 46 to the pound. The merchants of New York attacked the problem by lowering the value at which good halfpence would be received from 12 to the New York shilling to 14. They were accused of doing this to make a profit by shipping the coins elsewhere. This started a commotion in New York in which two individuals threw halfpence into the mob to incite a riot and one person went so far as to beat a drum. The New York legislature on December 12, 1753, then did something about it by passing "An Act to Prevent the importing or passing Counterfeits of British Halfpence and Farthings" (Livingston & Smith, II, Chap. 22), the preamble of which began:

Whereas, many Counterfeits of British Half-pence and Farthings are now passing in this Colony, to the Great Damage and Loss of the Inhabitants. . . .

The law then provided for a £100 fine for importing counterfeit British copper or a fine of 10 times the amount passed for passing such counterfeit copper knowing it to be counterfeit. It further provided that if anyone kept copper counterfeits in his custody for 10 days knowing them to be counterfeits, such action was equivalent to importing counterfeit British copper. The counterfeit money seized was to be melted down by the General Court and given to the Overseers of the Poor.

This was the law which existed when in 1787 copper coinage operations at Machin's Mills near Newburgh, New York were planned. An analysis of its provisions emphasizes its many loopholes. Primarily there was no prohibition against coining counterfeit British coppers within New York itself. If any counterfeit coppers were so minted they could be taken to an adjacent state where the New York law would be inapplicable and thus the coiner would avoid the 10 day custody period. For a law enforcement officer or an informer to be able to prove possession of counterfeits at the beginning of the 10 day custody period would, ordinarily, give the coiner or possessor adequate warning to dispose of the coins on hand. The possessor of counterfeit coins could begin counterfeiting again with complete immunity 10 days after his first warning. Proof, in any case other than an actual coiner, that a passer or possessor of counterfeit copper knew that the coins in question were counterfeit was obviously most

difficult. Another weakness of the law from a preventive point of view was that a conviction under it carried no punishment by incarceration, merely a fine. It must be recognized, however, that the 1753 law was devised when the prospect of minting counterfeit coppers in New York itself was too remote to be contemplated by the Assembly.

In 1776 the New York newspapers reported, "We hear it is proposed that after 3 months the currency of all copper coin made of base metal or wanting in weight is to be totally suppressed" (*New York Journal and General Advertiser*, June 27; *New York Gazette*, July 1).

A report of the status of circulating copper coin was presented by a committee of the New York Assembly on March 3, 1787. It pointed out some genuine English halfpence of George II were in circulation but that they were very worn; that Irish copper halfpence were in use; and that quantities of imitations of British halfpence generally called Birmingham Coppers were in abundance, lighter than normal, of inferior copper, and badly executed. It stated that they were imported from England in casks under the name of Hard Ware or Wrought Copper. No mention is made of any English farthings, nor is mention made of any genuine George I or George III English copper. As a result of this report, the Assembly set the circulating value of coppers weighing one-third of an ounce each (48 to the pound) at 20 to the New York shilling, effective August 1, 1787, and prohibited all others except United States coinage. This decline in value of coppers from 14 to the shilling was so great that on June 18, 1787, it was recommended that each week thereafter one copper be added so that by August 1, 1787, the new rate would be more acceptable. Little attention was paid to the law. By 1789, New York was glutted with coppers to such an extent that some merchants advertised that they would take coppers at 60 to the shilling. The Common Council of the City of New York, on July 21, 1789, recommended a rate of 48 to the New York shilling and this eased the tension. On July 25, 1789, the Common Council of the City of Albany made an identical recommendation. A few months later only New Jersey coppers were acceptable at 24 to the shilling and others were rejected.

NEW ENGLAND

The greatest influx of English copper coin into America took place in 1749 when the English Parliament agreed to reimburse the Province of Massachusetts Bay in the amount of £183,649 2s 7½d for expenses of the expedition which captured Cape Breton from the French. Of this sum a substantial part was paid in silver but ten tons of English copper coinage having a face value of £2111 4s 8d was shipped to Boston in 100 casks on



Great Britain, Halfpenny 1749

the ship "Mermaid," consisting of 726,800 English halfpence and 573,184 English farthings. These coppers were of George II mintage, most of them dated 1749. The bulk of the coin was put into circulation in redemption of outstanding paper money of the colony. The stabilizing effect of these silver and copper coins on the Massachusetts paper currency was apparently not sufficient to prevent inflationary thinking, as an Act was passed in Massachusetts Bay effective March 31, 1750 (23rd George II), setting the value of a Spanish Piece of Eight at 6 shillings New Tenor Massachusetts Currency, the English halfpence at two-thirds of a pence in Massachusetts currency, and other money in proportion. Coupled with the regulation was a penalty against counterfeiting or altering any regulated coin, including copper, or knowingly passing any such counterfeit or altered coin. There was one amusing exception making it lawful to use copper halfpence or farthings to make or to mend pots and pans. A penalty of £50 with half payable to the informer was enacted in 1759 for paying or receiving coin for more than the established rates. (*Acts and Laws of His Majesty's Province of Massachusetts Bay in New England*, Boston, 1759, p. 341). This same exchange ratio continued until independence and was reenacted on October 26, 1784.

By a legal tender amendment passed February 8, 1762, gold and silver were made legal tender in Massachusetts but copper was entirely omitted from that status.

The stability of halfpence was upset by importation of counterfeit halfpence from time to time. The Massachusetts House of Representatives ordered an investigation into the matter on March 27, 1755 (Joseph B. Felt, *Historical Account of Massachusetts Currency*, Boston, 1839, p. 138).

During the Revolutionary War, English halfpence, like other coins, were carefully hoarded but soon came back into circulation as public confidence was restored.

The 1750 Massachusetts law as to counterfeit copper expired on November 1, 1785, and a new law against counterfeiting of copper coin

and against importing counterfeit copper was passed on July 4, 1786. This did not cover knowingly passing or receiving counterfeit coin and was therefore of little effect. It was intended only to protect the official Massachusetts copper coinage which was authorized as a part of the same act.

New Hampshire established the same basis for valuation of halfpence as Massachusetts had had in effect since 1750, namely three halfpence equalling two pence. The law passed on June 7, 1765, was disallowed by the Crown on August 12, 1768; revived by a Proclamation of the Governor on March 2, 1769; disallowed by the Crown on December 10, 1770; reestablished on January 3, 1772, by making the disallowed proclamation into law, and after independence reaffirmed by legislation on February 12, 1785. The failure of the Crown to act promptly or reasonably with respect to American laws was exemplified by this action and that practice was one of the first complaints listed in the Declaration of Independence.

In Vermont there was no regulation, but the *Vermont Gazette* of July 20, 1792, humorously commented as to light weight coppers in circulation, "those that are genuine, twelve of them pays six pence, or will make ample, full and complete compensation for a nip of grog . . . but it will take fourteen of the counterfeit kind to make such compensation."

Rhode Island in June 1763, passed an act identical to that of Massachusetts, establishing the circulating value of English halfpence at two-thirds of a penny of Rhode Island currency or 18 to the shilling (*Acts and Laws of the English Colony of Rhode Island and Providence Plantations in New England in America*, Newport, 1767, pp. 165-7), but by 1789 they were passing at 48 to the shilling.

In December 1766, Rhode Island had passed an act imposing the death penalty for counterfeiting or knowingly passing a counterfeit of any British or foreign coin (p. 36). While this law was primarily intended to protect gold and silver coin circulation, it does not exclude copper coin by its terms and may have been applicable.

Connecticut was the only New England colony which did not assign a value by law to British halfpence and had no restrictions on copper in circulation. In May 1786, an attempted prohibition against importation into Connecticut of more than 50 coppers failed of passage. With an exclusive franchise given in 1785 to private copper coiners there, the solution to the British halfpence problem was left to natural economic adjustment. By 1789, Connecticut as well as other coppers were as low as 72 to the New England shilling.

Under date of December 22, 1785, it was stated in Boston that "with quantities of what are called coppers, but of a baser metal passing, should put people on their guard, not only to prevent being cheated, but to stop their circulation." (*Pennsylvania Journal*, Jan. 4, 1786). The *Massa-*

Massachusetts Centinel on January 11, 1786, elaborated on the conditions and the attitude of the people:

The copper coinage, current in this town, must be a considerable loss to the citizens at large, as the intrinsic value of most of the coppers in circulation, is not half what they pass for. Scarce a British vessel arrives in any port on the continent, but what it brings very great quantities of rap half-pences, and yet shameful as it certainly is, this inundation of base metal is passed with impunity and indifference.

The amount of counterfeit British halfpence circulating in America during the last half of the eighteenth century was clearly described in the *Massachusetts Spy* of March 16, 1786 and the *Newport Mercury* of March 27, 1786:

. . . nearly one-half of the copper coin in this country for twenty or thirty years past has been of a base kind manufactured at Birmingham in England; however, it crept into circulation and did . . . pass for the same value as those which are genuine.

In the *Diary of William Bentley* (*Num* 1901, p. 11), an entry made on September 2, 1787, by the Salem preacher and early numismatist stated:

About this time was a great difficulty respecting the circulation of small copper coin. Those of George III. being well executed were of uncommon thinness, and those stamped from the face of other coppers in sand, commonly called, "Birmingham," were very badly executed. Beside these were the coppers bearing the authority of the States of Vermont, Connecticut and New York, etc., but no accounts how issued, regularly transmitted, the Connecticut copper, has a face in general form resembling the Georges. . . . A mint is said is preparing for the commonwealth of Massachusetts. It may be noted that the New York and Connecticut coin face opposite ways. To remember all the coin which passes through my hands, I note down a few coppers of foreign coin: Swedish coin, shield, three bars, lion, etc., 1763, measures 1 inch and 3-10: another 1747 similar: Russian, a warrior on horseback with a spear piercing a dragon, on the reverse a wreath infolding a cypher.

SOUTHERN COLONIES

In the southern colonies, English halfpence circulated in more modest amounts. One of the necessities in establishing the colony of Georgia was a money supply, and in 1734 and 1735, shipments of English halfpence

and farthings by the ton were arranged jointly by the Crown and the trustees for the Colony. These coppers circulated at their sterling or English value so long as the trustees controlled the economy.

In Maryland, an act was passed on September 21, 1742, to encourage John Digges to mine copper and erect a stamping mill and a copper works. While this did not provide for copper coinage, such a project would have been urged if the enterprise had come into being. The *Maryland Gazette* of February 28, 1754, referred to English halfpence as "copper pence" because they passed at one penny currency each and pointed out that with genuine and counterfeit halfpence crowding in upon them there would be a great loss from such "imaginary worth." As an example it showed that with eggs selling for four pence currency per dozen, it cost 18 pence currency (one shilling sterling) to buy 4½ dozen eggs. Paying with halfpence, the same amount of eggs could be bought for 18 copper halfpence worth only nine pence sterling, a 25% loss to the seller. The paper recommended that 15 genuine halfpence pass for one shilling currency instead of 18, and that counterfeit halfpence were worth at best 48 to one shilling currency. This example, though scrambled, illustrates the complexity of unregulated values.

In North Carolina, an act was passed on Dec. 5, 1768, to encourage importation of British halfpence, which were to circulate at 12 for one shilling Proclamation Money, but the act added that no person had to accept more than ten shillings in such payment. The Crown repealed the act.

In 1710 and 1727, Virginia made the counterfeiting of any money an act of treason and thereby punishable by death. (*The Acts of Assembly now in force in the Colony of Virginia*, Williamsburg, 1769) and on May 6, 1776, added the death penalty for passing base coin. The expression "base coin" was apparently intended to protect the Virginia copper halfpence dated 1773 from counterfeit copper coin as well as to make passing counterfeit specie coin punishable.

MIDDLE COLONIES

About 1738, a broadside signed with the fictitious name Dick Farmer, pointed out that Pennsylvania merchants who recently imported English halfpence and paid them out to farmers, millers, and tradesmen had now refused to take them back at the same rate of one English halfpenny for 1d Pennsylvania currency. The broadside recommended that if the assembly would authorize the General Loan Office of Pennsylvania to accept halfpence at that rate then the problem would be solved (Library Company of Pennsylvania collection). This did not take into account the fact that further imports of coppers would be thus stimulated.

On January 2, 1741, there was a riot in Philadelphia because some shop-

keepers were accepting English halfpence at 1d Pennsylvania currency each while others insisted on 5 halfpence for 4d Pennsylvania currency. This caused further large importations of English halfpence, due to the fact that the value of the Pennsylvania pound had fallen in relation to the English pound. The bakers refused to bake bread and the mob broke windows in many shops. (Benjamin Franklin, *The General Magazine and Historical Chronicle for All the British Plantations in America*, Philadelphia, 1741, p. 73).

The officials of the City of Philadelphia realized that in order to keep English halfpence in circulation and to avoid further imports from England and other American colonies it would be necessary to have 15



halfpence equal the value of one shilling Pennsylvania currency and therefore passed such an ordinance. This was equivalent to 92½ English halfpence to the Spanish dollar or to 7 shillings 6 pence in Pennsylvania money of account. The English halfpence were therefore valued on almost the same exchange basis as Pennsylvania paper currency. The City of Philadelphia, therefore, in an ordinance passed on June 18, 1741, tried to maintain the circulating value of English halfpence at 15 to the shilling until some authority determined otherwise and made the refusal to accept English halfpence at that rate a disturbance of the peace. No other applicable legislation was passed until Independence since the counterfeiting legislation which was passed related only to gold and silver coins and to paper money. On July 14, 1781, the Supreme Executive Council of Pennsylvania issued a proclamation prohibiting public officials from ac-

cepting base metal counterfeit British halfpence and recommending that the populace refuse them. The proclamation points out that "Divers ill-disposed persons have manufactured or imported into this State quantities of base metal, in the similitude of British half-pence". In interpreting what coins were referred to by this proclamation, Crosby wrote (pp. 169, 172) that all would agree with the opinion of Edward Maris that the light weight base metal coins were evasions—those with variations from the legends on regal halfpence or variations from the devices on regal halfpence. Examples of variations are given such as George Rules, Bonny Girl, Gregory III Pon, Britains Isles, etc. The 1781 North American token was included as the same type. This portion of Crosby's text was written during or prior to 1872. In July 1872, the editors of *AJN*, p. 23 explained similar language of the New York Committee on Copper Coinage as referring to those coppers with variations from the standard legend on British halfpence. Crosby, however, in his footnote to the N.Y. Committee report mentions only normal imitations (p. 291). Maris (*Coins of New Jersey*) gives examples of "Britain Isles" for Britannia and "Hebrides" for Hibernia.

Before analyzing whether the Crosby confirmation of the Maris opinion needs clarification, the subsequent numismatic literature and comment on the subject of evasions should be examined.

S. K. Harzfeld, a coin dealer, came from Germany to Philadelphia in 1877 and died in 1883 after returning to Europe earlier in the year. In six years as an American coin dealer he conducted auction sales and in them introduced evasion halfpence to the American collector. In his March 13, 1878 sale, 543–5, he described the evasions as the "Pennsylvania Base Half-Penny" and referred to the Crosby comment in support of it. This practice continued in subsequent sales (March 14, 1879, 323–4; September 11, 1879, 629; February 17, 1880, 225) and was no doubt supplemented by his mail and over-the-counter transactions. No prior American coin sales catalogues list these evasions for sale and this is remarkable in view of the large number of auction sales held in America before 1877. This situation is fortunately cleared up by Elliot Woodward in his Dec. 16, 1885 sale, 2006, where he wrote "Pennsylvania copper. To our late friend Harzfeld belongs the credit of introducing this remarkable series to American collectors. It is very extensive and increasing in numbers daily." By using the expressions "introducing" and "increasing in numbers daily" he was more accurate than he realized. In his attempt to praise Harzfeld he was showing that these coins were a fresh import for collectors at that time rather than a century earlier when they were alleged to have appeared in circulation in America.

The Chapman Brothers, in the Bushnell sale catalogue of June 20, 1882, 988–92, list evasions under the title "Coppers Circulated in Penn-

sylvania Known as Bungtowns.” This statement by Philadelphians was not challenged by Frossard in castigating the accuracy of the Chapman publication and therefore it can be assumed that Frossard believed it. Woodward of Boston listed evasions as Pennsylvania coppers in the Ferguson Haines collection sale on October 14, 1880. The evasion coppers were successively called Pennsylvania Tory Coppers, Pennsylvania Bungtown Coppers and Pennsylvania Bungtowns by Charles Steigerwalt, a dealer of Lancaster, Pennsylvania, in his sales beginning in the 1882 period (April 13, 1882, 470; May 28, 1883, 339; June 18, 1883, 391; April 9, 1885, 878) and in his *Coin Journal*. In the sale of Crosby’s own collection by John W. Haseltine on June 27, 1883, the extensive group of evasion coppers was described as having circulated in Pennsylvania. Haseltine, being a Philadelphia dealer, put these items in his 1884 price list. Thus the evasion coppers were duly Americanized and Bungtownized by leading professional numismatists. The other major dealers followed blindly, such as Lyman H. Low of New York with six pages of evasions listed under Pennsylvania in his 1885 catalogue; Scott Stamp & Coin Company included in its 15th Edition of *Copper Coins* in 1889, quantities of evasions under Pennsylvania, and in its 16th Edition in 1890, it listed eight pages of evasions in the same manner. Scott Stamp & Coin Company also included under Pennsylvania, the imitation halfpence of George II and George III which were true counterfeits rather than evasions.

A challenge to the connection of evasions with Pennsylvania first appeared in *Mehl’s Numismatic Monthly*, March, 1918, p. 38, when it was stated that the so-called Pennsylvania Bungtowns were British tokens and to “the credit of Pennsylvania” did not come from there. This challenge seems to have been ignored, and the nineteenth century opinion has been accepted and repeated by a parade of numismatic writers down to this date.

This position, in the writer’s opinion, is completely in error.

In the Pennsylvania proclamation, the use of the words “manufactured or imported into this State” indicates that the authorities were not sure of the source. If the source were in Pennsylvania, why would the coiners put non-standard legends or devices on their counterfeits when there was no possible distinction in Pennsylvania law against producing or passing counterfeit British halfpence or any other coppers? Why would they employ strange legends and devices which would obviously impede the acceptance and circulation of the false coppers as well as trap the distributors?

Why would anyone want to import coppers with obviously improper legends and devices when quantities of counterfeit British halfpence could be imported or coined just as easily? There was no law in America at the time which had to be avoided by subterfuge, as the 1771 British law against counterfeiting coppers was not applicable to America.

No coppers with improper legends or devices have been found in early American hoards of copper coins. All of the pieces found on the farm of L. B. Huber between Landis Valley and Eden had standard legends (Martin, *NumRev* [Stack's], January 1947, p. 5). The same is true of the Stepney Connecticut hoard (Breen, *Num*, October 1952, p. 1005).

In the continuing archaeological research at Hannahstown and Fort Ligonier, Pennsylvania, over 200 eighteenth century copper coins have been found in and around the homes, taverns, and encampment sites. They included many George II and George III English halfpence (genuine and counterfeit), Connecticut, New Jersey, and Nova Constellatio coppers. There was no piece of the evasive legend type.

The North American Token dated 1781 is now known to be an ante-dated Canadian piece of nineteenth century origin and was not in existence in 1781 when the proclamation was issued.

The proclamation would probably have mentioned non-standard legends or devices but it did not.

There has never been located any newspaper article or other written material published during the period prior to the Revolution or in fact up to the middle of the nineteenth century which mentioned the circulation in America of any non-standard legends or non-standard devices on copper coin. Readers would have found this matter of great comical interest and of unusual political value.

Thus it appears that no evasion halfpence ever circulated in Pennsylvania or anywhere else in America and that the importation of evasions was brought about by Crosby's acceptance of an erroneous opinion of Maris. The evasions were struck and circulated in England alone and were, through error, called Buntown, Pennsylvania halfpence or Tory halfpence only by American dealers and writers.

In New Jersey, the people generally followed the practices of Pennsylvania as to money circulation matters because their currency was on a par with Pennsylvania's. After the Revolution, the problems of halfpence circulation became local. A dispatch from Princeton (*Pennsylvania Gazette*, July 18, 1787) pointed out that at New Brunswick, retailers passed



New Jersey, Cent 1786

halfpence out at 20 to the shilling, at Trenton 30 to the shilling, and at other places 24. It was pointed out that when New Jersey franchised a private mint in June 1786 to coin New Jersey coppers, 15 were to pass for one shilling currency. This was supplemented by an act of June 4, 1787, that after July 20, 1787, no copper coin other than New Jersey and United States coppers was to circulate, any member of the public becoming entitled to sue and recover for himself ten times the amount passed to him.

Apparently the law was effective, as the stoppage of circulation of English halfpence caused a dispatch from Elizabethtown (*Pennsylvania Journal*, September 1, 1787) to state that "the partial evil we at present



New Jersey, Cent 1787 (struck over British Halfpenny 1774)

experience from the stoppage of the circulation of British halfpence will speedily be remedied by an emission from Congress." This referred to the Fugio coinage which was late in delivery, inadequate in amount, and circulated at the same value as other coppers.

The General Assembly of New Jersey, on June 7, 1790, heard a committee report indicating that New Jersey coinage designs were overstruck on base coppers by unknown people to make a profit so that such coin would pass at 15 to the shilling currency instead of 45 to the shilling. These overstruck pieces, chiefly the variety Maris 56-n, caused a breakdown in circulation of New Jersey coppers, and an investigation to find the guilty persons was recommended.

Counterfeiting Copper in America

American counterfeiting of British halfpence seems to be first publicly commented upon in the *Providence Gazette and Country Journal* of April 17, 1784:

Within a Fortnight past, considerable Quantities of counterfeit British Halfpence have been brought here, and many of them

passed in small sums. They are of base Metal, badly executed, and of course easily detected—We are desirous to mention that they are openly manufactured in a neighboring Town in the State of Massachusetts.

Although this announcement does not use any place name, it specifically designates the site of manufacture as in Massachusetts and near Providence.

This news spread quickly. It was rephrased and published in the *New York Journal & State Gazette* on April 29, 1784, as taking place in the “State of Massachusetts.” Boston was alerted and on May 3, 1784, it was announced there that “Great quantities British half-pence or coppers, made of base metal, are now passing in this town. It is said they are openly manufactured in a southern town in this state.” (*United States Chronicle*, Providence, May 6, 1784). Massachusetts authorities apparently were unable or unwilling to arrest the counterfeiters.

Therefore, on June 28, 1785, Rhode Island found it advisable to pass legislation, the preamble of which apparently referred to the Massachusetts-made counterfeits in the following way:

Whereas of late there hath been introduced into this state large quantities of mixed metal made in imitation of the copper coin which pass as a currency therein, which tends to the encouraging of Frauds, to the Support of Idleness and Dissipation. . . .

The law provided for a fine of 6 shillings for anyone knowingly receiving or passing a base metal imitation of a copper coin, half of the fine to go to the informer and half to the state. It also provided severe penalties for the counterfeiter himself. The *Pennsylvania Packet* at Philadelphia published the intent of the Rhode Island law for its readers on July 14, 1785, because Pennsylvania had no effective legislation.

The Rhode Island Act also seems to have been virtually unenforced. The one prosecution located was against a Connecticut resident, not someone from Massachusetts or Rhode Island. Abner Woodward, who came to Newport to sell butter and cheese, claimed he received a few coppers from one customer and gave them out in change to another. He claimed everyone else was doing the same thing. One customer who received coppers from him complained to the authorities and would not let Woodward substitute good coppers for the bad ones. The informer's share of the fine (3 shillings) was too tempting. In his plea for remission of the fine Woodward in May, 1786, claimed that he was the one and only person ever prosecuted in Newport under that law. The State waived its share of the fine but the informer kept his.

The October 18, 1785, petition to the Connecticut General Assembly to obtain the Connecticut franchise to coin coppers stated with respect to

British halfpence that “our late Enemies . . . unrestrained by any law are counterfeiting in vast abundance, that others even of our Countrymen & your Memorialists are sorry to say some even of their fellow Citizens have attempted the same nefarious Business and are now Coining and stamping a Copper Coin much under standard weight.” This statement showed that in addition to the importation of counterfeit British halfpence there were coppers produced in America, either in Connecticut or close by. It is also clear that the manufacturing process was by striking rather than by casting. The quality of the metal was not complained of, only the quantity.

The *Massachusetts Centinel* of March 4, 1786, continued the news from Boston by stating:

The *Copper-Smiths* of the neighboring towns have done us *much evil*, by fabricating in large quantities and throwing into circulation pieces of base metal, resembling the current Copper Coin of the Commonwealth. This seemingly petty business has so long been transacted with impunity, that it has encreased to an alarming degree, and ought to be discouraged and condemned by every considerate citizen. Several persons, of the above description, who have been boldly vending considerable quantities of this new species of merchandize in this town, were deemed worthy of judiciary cognizance, and were punished by fine according to their demerits. . . .

In Philadelphia in September 1783, William Tricket and Samuel Cryndal, brass founders by profession, were convicted of counterfeiting 300 British halfpence “with an intent the honest and liege subjects of this Commonwealth to cheat and defraud, to the evil example of all others in the like case offending.” The February 21, 1767, counterfeiting law related only to gold and silver so that an intent to defraud under the common law was the basis of the charge. In a petition of October 8, 1783, for release from jail, Cryndal stated that his employer “Tricket shewed him a Pattern of making Coppers.” While this might indicate a die for striking coppers, the petition of Tricket for pardon urged that all he did was innocently file the counterfeit coppers for his former employer, John Stanton. Filing being necessary to smooth the port of a cast piece, it appears that casting rather than striking was the process used and this conforms to the brass foundry business in which the men were engaged. Either genuine or counterfeit halfpence could have been used as patterns for casting new counterfeits as detail was not essential.

By mid-1787 the production of the state-franchised mints of Massachusetts, Connecticut, Vermont, and New Jersey, coupled with the importation of Nova Constellatio coppers and the addition of American and

other counterfeits of English halfpence to the existing supply had glutted the nation with copper coins. There was a temporary paralysis in their circulation due to the changing rates at which they were taken. During this difficulty the *Newport Mercury* of August 13, 1787, commented casually on the problem, and put the word Bungtown in writing for the first time.

By a Correspondent of good Intelligence we are informed—That all Coppers by Law in New-York, except Bungtowns, are fixed at 160 for a Dollar; that in the Jerseys they had depreciated to 180 for a Dollar, and that there are large Quantities imported into this State and passing at 108 for a Dollar, for our Produce, Sugar, Molasses, &c. So that the Inhabitants of this Town and State ought to be on their Guard, lest such vast Quantities should be imported and passed here, as to depreciate them as low here as they are at the Westward, and thereby cause Numbers to suffer, who may take large Sums for their Produce, &c. at 108 for a Dollar.—A Hint for the General Assembly of this State, to improve at their next Session.

To what did Bungtown refer? It obviously meant counterfeit base metal or light weight halfpence. It was used in Rhode Island for Rhode Island readers. This expression has stood as one of the most curious words in American numismatics and has given rise to endless speculation and research as to its origin and meaning.

It is fundamental to the study of the word Bungtown that we recognize that in the past there has never been any written use or knowledge of the word in England and that the only written or other evidence of it is in the United States. Its use in the United States must be divided into its uses with respect to coins, its uses as a name of specific localities, and its other uses in literature and conversation.

First let us examine its written uses by other than numismatists.

In 1835, Henry C. Todd, a New Englander, commented on Canada and stated: "Brantford is the focus of coiners; spurious half dollars and base currency, are called, at Hamilton, Bungtown money, in which place a band of regular burglars from the old country have just been broken up." (*Notes upon Canada and the United States in the year MDCCCXXXV*, Toronto, 1835, p. 83.) Todd shows that while Bungtown money was referred to by that name in Hamilton it was not so known in Brantford, indicating that the expression came from the community adjacent to the United States and had not reached the more northerly city.

In "The Haunted Merchant," written by Harry Franks (*The Knickerbocker*, May, 1840, p. 385), a New England tavern keeper took "a five cent piece and two bungtown coppers out of the till."

In 1845, Sylvester Judd wrote in the novel *Margaret*, p. 19: "These flowers wouldn't fetch a bung-town copper."

In a story in the Wilmington, North Carolina *Commercial* of Aug. 26, 1848, "the farmer took out what he called a Bungtown copper and dropped it into the hat."

James Russell Lowell (1819–1891), famous American poet, essayist, and educator, wrote the first series of *The Bigelow Papers* (1848) which were humorous comments in Yankee dialect on serious political subjects. He preserved the colloquial jargon of New England in these writings. He refers (p. 64) to "a speech of Ensign Cilley at a dinner of the Bungtown Fencibles." This allusion to the speech of a silly ensign before the Bungtown defenders is indicative of the fact that Bungtown was a fictitious town name used as a basis for humorous derision. Under the caption "To the indulgent Reader" (p. 36) Lowell labels the author of a message as "Pastor of a church in Bungtown Corner." This alluded to farcical religious leadership and a fictitious town was selected to avoid hurting any feelings.

In other passages, Lowell indicates the Bungtown relationship to coin. Under "Notices of an Independent Press" (p. 5) he gives the by-line "From the Bungtown Copper and Comprehensive Tocsin (a try-weakly family journal)." In his Glossary (p. 147) and his index (p. 423), he comments "Antislavery perfessions 'fore 'lection aint wuth a Bungtown copper" (Antislavery pronouncements before an election are worthless). New Englanders understood Lowell, and his repeated use of Bungtown proves it to be a comic expression indicating to his readers utter worthlessness in value or an unidentified disreputable community at which to aim his jibes.

Henry Thoreau described a trip he made to Canada in 1850 (*A Yankee in Canada*, Boston, 1866, p. 22) and commented on changing money in Quebec:

Moreover our robust cents were compelled to meet on even terms a crew of vile half-penny tokens and bungtown coppers, which had more brass in their composition, and so perchance made their way in the world.

M.N. Thompson writing in 1855 under the name Q.K. Philander included in *Doestick's Letters* (New York, p. 62) a comment by a drunk:

The last thing I distinctly recollect is trying to pay the fare for three on this novel craft, with a single piece of money (which I now know to have been a bungtown copper) and demanded two-and-sixpence change, which I didn't get.

When Dr. John B. Harmon, who was the son of the original holder of the Vermont copper coinage franchise, wrote in 1855, "The British imported so many of the 'Bung Town Coppers' which were of much lighter color . . ." he was referring to counterfeit British halfpence made in Britain.

The first attempt to explain or interpret the meaning of the word was in Bartlett's *Phrases usually regarded as peculiar to the United States* (1848). In that dictionary of Americanisms, the expression Bungtown-Copper is defined as: "The old English half-penny, or copper. So called in various parts of New England."

This was immediately contradicted by an article in the November 24, 1848, *Providence Journal* which stated:

Americanisms—No. 4. Bungtown Copper—Mr. Bartlett gives this as the name of 'the old English half penny or copper'—He is mistaken. It was the name given to a spurious coin, of base metal, a very clumsy counterfeit of the English half penny or copper. It derived its name from the place where it was first manufactured, then called Bungtown, now Barneysville, in the Town of Rehoboth, Mass. The Bungtown copper never was a legal coin. The British half penny or copper was.

In the second edition of Bartlett's *Americanisms*, published in 1859, and in the subsequent revisions of 1860 and 1877, the definition was changed to conform to that published in the *Providence Journal* plus the original Bartlett comment that the word is only used in New England. Bartlett was a Rhode Islander and his modified explanation, although it needs slight technical and geographical corrections, carries much weight and has not been challenged.

There were many other theories advanced since then. In 1857, the Bungtown copper was described as a Connecticut copper. Lyman H. Low in 1898 proposed that Bungtowns received their name from the bungling manner in which they were struck. M. Schele de Vere in *Americanisms*, published in 1872, described Bungtown as an imaginary town in New England named for a slang term meaning to lie, and defined Bungtown copper as a favorite name for the spurious English halfpenny. John S. Farmer, in 1889, agreed in his dictionary of Americanisms that the word bung meant to lie or deceive and the word bungtown had that source. This was also followed by Sylva Clapin in *A New Dictionary of Americanisms*, published in 1902.

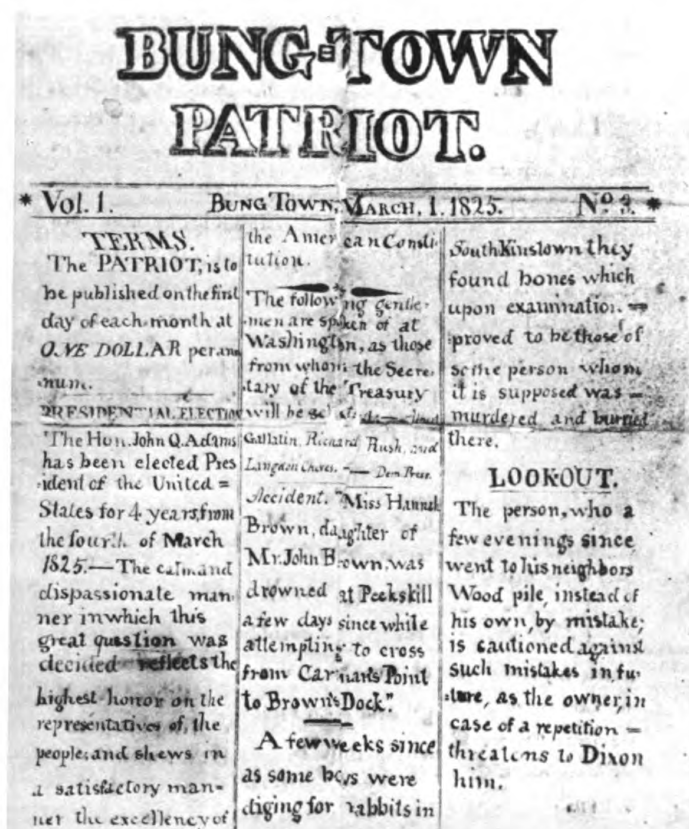
Another theory is that Bungtown means Birmingham, England. Birmingham has always been and still is referred to in England as Brummagem (its latin name) and in its abbreviated form as Brum. The English during the seventeenth and eighteenth centuries knew that the principal sources of counterfeit copper coins were in Birmingham and referred to those false coins as Brummagems (*Enc. Brit.*, s.v. "Brummagem"). The expression continued to be used commonly with respect to counterfeits of copper coin even as late as 1834 when Robert Southey in *The Doctor* (London, Chapter CXL) wrote, "He picked it up and it proved to be a Brummejam of the coarsest and clumsiest kind, with a head on each side."

Brum and Brummagem also took on a similar meaning as to items other than coins, namely, a reproduction or not a genuine item. The word brummish had the same background. Americans knew that imported counterfeit copper coin usually came from Birmingham and often referred to them as Birmingham coppers. It was therefore easy to theorize that Brum became Brumtown and then Bungtown. There is no evidence of any such transition, although several authors have adopted this theory: Howard Kurth, "Auctori Plebis Coppers," *NumRev* (Stack's), September 1943, p. 56; John S. Dye, *Dye's Coin Encyclopaedia*, 1883, p. 200.

The next field for investigation is to determine whether the name of any community in the United States or elsewhere is or was officially Bungtown. None was located. However, the nickname Bungtown was applied to several communities, including two in New England, one in New York, and one in New Jersey.

WESTERLY, RHODE ISLAND

Westerly, on the east bank of the Pawcatuck River, at the western boundary of the state, became a shipbuilding port by 1681, and that industry continued to thrive there for almost 200 years. Bungtown was the name applied to a stretch of Main Street along the river below School Street. The ships docked at the wharf along that street and shipbuilders, ship suppliers, warehouse operators, fish dealers, tanners, and other commercial operations were clustered along the wharf. The buzz of sawing ship timbers was known as the "music of Bungtown." At the end of the eighteenth century, when the town had 400 inhabitants, the area was disreputable and was also often referred to as a mud puddle. Rhode Island historians have speculated that the name Bungtown may have arisen from the fact that quantities of gin and rum imported from the West Indies were consumed by the populace directly from the bung or that barrel construction there was an important activity. (Mary Agnes Best, *The Town that Saved a State—Westerly*, 1943, pp. 87, 107, 223, 235, 237, 249; Harvey C. Perry, "The Bungtown Chronicles," *Records and Papers of Westerly Historical Society*, 1933, p. 16; Frederic Denison, *Westerly and its Witnesses*, 1878, pp. 179, 229.) The town at this early period was described by a Rhode Islander as "The hardest looking town in our blessed little State". In 1824, Charles Perry, at the age of 15, started his eminent publishing career with a little newspaper called *The Bungtown Patriot*. Each copy of this publication was handwritten with a quill pen and the illustrations and captions were from wood blocks cut by this boy. The few issues known of this newspaper do not indicate any source of the



(Courtesy of the Westerly Public Library, Westerly, Rhode Island)

Bungtown name but confirm its popular use as a slang name for Westerly, Rhode Island for some period prior to 1824. On April 29, 1858, when the *Narragansett Weekly* began publication, it mentioned *The Bungtown Patriot* as the first newspaper of Westerly. Between 1787 and 1824 no written use of the word Bungtown has been located.

LAMBERTVILLE, NEW JERSEY

Hiram E. Deats, of Flemington, New Jersey, who had a long and distinguished numismatic career, wrote in 1946 (letter to Damon G. Douglas dated March 25, 1946) that a piece of real estate in Lambertville, New Jersey was referred to as "The Bungtown lot" in the division of the estate of Emanuel Coryell, who took over the Lambertville-New Hope ferry operation across the Delaware River in 1732. The realty he referred to was said to have been distributed about 1760 to George Coryell (a pallbearer at George Washington's funeral) and was between what are now Church

and Delevan Streets along the shore of the Delaware River. Rivermen travelling between Philadelphia and Easton used the Red Tavern there as a shore headquarters, bringing the locale a reputation for filth, drunkenness, and carousing. In a perusal of the probate documents as to the Emanuel Coryell Estate "the Bungtown lot" expression cannot be corroborated. At least the *New Hope News* and the *Lambertville Record*, modern newspapers which circulated primarily in Bucks County, Pennsylvania and Hunterdon County, New Jersey, sometimes carried on their mastheads "Otherwise known as the Bungtown Bugle." Their editor, Gordon Cooper, explained in the July 7, 1960 issue of the *New Hope News* that Lambertville, New Jersey was historically known as Bungtown since early times because a whiskey distillery on South Main Street (formerly River Road) stored barrels in the sun and the bungs popped out on the sidewalk so as to interfere with pedestrians. The name Bungtown was apparently well known to residents of the area when Cooper as editor first applied the nickname to the *New Hope News* in 1920, but the use of a cooerage tale by editor Cooper as to the Bungtown origin cannot be verified.

In the presidential campaign of 1892, one of the planks in the Democratic platform was a repeal of the 10% tax on the issue of bank notes by state banks. This tax had been in effect since 1866 to protect National



(Courtesy of the Eric P. Newman Numismatic Education Society)

Bank Note circulation and Grover Cleveland as the Democratic nominee endorsed the repeal of that tax measure. He was lampooned with a simulated \$5 bank note allegedly issued by "The Cleveland Bank" bearing a picture of a wild cat and payable in money, coon skins, or cord wood at the pleasure of the issuer. It was also receivable for 5 cent drinks at 20 cents each. This comic propaganda piece, distributed by the *Globe Democrat*, a St. Louis newspaper, had its place of issue printed as Bungtown, New Jersey, showing the continued familiarity of the general public with that derisive expression at the end of the nineteenth century.

BUNGTOWN, PENNSYLVANIA

In Stack's sale catalogue of January 18, 1936, the comment preceding lot 421 stated "Colonial Copper Coins struck at Bungtown, Pa." so this unidentified site can be added to the list of possible Bungtown geographical speculations.

NORTH WALES, PENNSYLVANIA

Charles Schmall, in *NumRev* (Stack's), July 1944, p. 30, stated that he was convinced that evasion halfpence with the legend NORTH WALES were issued in North Wales, Pennsylvania, a Quaker meeting town. He also tentatively identified North Wales, Pennsylvania as the Bungtown site. Fortunately, his editors admitted that his controversial theories were being published so that their validity might be tested.

COLD SPRING HARBOR, LONG ISLAND

Cold Spring Harbor on Oyster Bay on Long Island, New York, was the



(Courtesy of the Eric P. Newman Numismatic Education Society)

home port for a small group of whaling vessels in the middle of the nineteenth century. To outfit those ships for their voyages, staves, hoops, heads, and bungs were manufactured there so that a ship's cooper during the voyage could assemble barrels as needed for whale oil. These and other mechanical trades were conducted on the west side of the Cold Spring Harbor below Cannon Hill and this district became known as Bungtown. There still remains a Bungtown Road which branches to the north from Oyster Bay Hill Road (Romanah Sammis, *Hungtington-Babylon Town History*, 1937, pp. 131, 148; Jaquelin Overton, *Long Island's Story*, 1929, p. 220; George E. Shankle, *American Nicknames*, 1937).

BUNGTOWN, VIRGINIA

On a Civil War satirical envelope printed in New York, a Confederate soldier wearing a barrel is designated as a member of the Bungtown, Virginia, Rot Gut Guards. The bunghole of the barrel is umbilically centered.

NORTH SWANSEA, MASSACHUSETTS

What now constitutes North Swansea was also known as Bungtown. When John Myles, a Baptist minister, and others were forced out of Rehoboth, Massachusetts, by the Congregationalists in 1663, they built homes five miles downstream on the west bank of Palmer's River. The area where Myles and his group lived was separated politically from Rehoboth in 1668 and became Swansea township. About one mile further downstream from the Myles settlement, Palmer's River crosses the Rhode Island boundary and becomes the Warren River, flowing into Narragansett Bay. Myles's house and the bridge across the river were burned by Indians on June 28, 1675, in King Philip's War. The house was rebuilt and was called Myles Garrison because the militia had assembled there. In 1749, a lottery to rebuild the bridge was approved. For a period following the Revolutionary War, Jonathan Barney built boats there, but his son Mason Barney (1782-1869), beginning in 1802, made the site famous by constructing 149 ships, many of them ocean-going vessels. This portion of Swansea township was renamed Barneyville on February 20, 1830, when a post office was established there. The Barneyville name was changed to North Swansea on June 28, 1836. Seth W. Eddy (1836-1916) who resided there and Emma Elizabeth Horton (nee Davis) who bought the Myles Garrison in 1904 both referred in fun to the community as Bungtown in their conversations with Marian Davis Reilly, President of the Swansea

Historical Society, and indicated that the name Bungtown preceded Barneyville and was in use by the residents (letter to the author dated July 12, 1960). The Barney ships were called Bungtown ships (Otis O. Wright, *History of Swansea, Mass.*, Fall River, 1917, p. 230). Lyman H. Low in 1902 received corroborating data from a correspondent in Bristol, Rhode Island (*AJN* 1902, p. 94).

The North Swansea-Rehoboth vicinity had a notorious background of counterfeiting. Mary Peck Butterworth of Rehoboth was the leader of a gang of paper money counterfeiters operating from 1716 to 1723. She had eight Rehoboth people working for her, including a deputy sheriff and magistrate, Daniel Smith (Richard LeBaron Bowen, *Rhode Island Colonial Money and Its Counterfeiting*, Providence, 1942, pp. 9, 11-12; *Early Rehoboth*, Rehoboth, 1945, II, Ch. 4). Her enterprise in its time was the largest counterfeiting operation in America, having outproduced Freeloze Lippencott of Newport, Rhode Island.

In 1755, Ichabod Ide and Constant Barney, Jr., both of Rehoboth, were caught passing Owen Sullivan's counterfeit bills. In 1785, Jonathan Drown of Rehoboth admitted guilt in a Providence Court for being a counterfeiter of Spanish dollars (*Providence Gazette & Country Journal*, April 2, 1785). On February 7, 1786, Benjamin Eastabrooks, a laborer of Rehoboth, was caught passing "mixed metal" counterfeit British halfpence in Boston and was convicted. These halfpence can be presumed to be those that the newspapers indicated were being produced in a southern Massachusetts town near Providence, which could only be the North Swansea-Rehoboth community.

Of the communities nicknamed Bungtown it is apparent that North Swansea, Massachusetts, is the only one which is tied in with either counterfeiting of copper coin or with counterfeiting in general.

The Meaning of Bungtown

It is well known that in order to fill a barrel a small round hole is drilled into the side or bottom. This is called a bunghole. A tapered stopper or bung is hammered into the bunghole to seal the contents and can be withdrawn to empty the barrel.

However, Bungtown is obviously slang. To justify the need to know slang or cant terms one can turn to the advice of the first English dictionary which included cant, that of Elisha Coles in 1676; "T'is no Disparagement to understand the Canting Terms: It may chance to save your throat from being cut or (at least) your pocket from being pick'd."

Shakespeare's *Henry IV, Pt. II*, written about 1597, used the word "bung." Doll Tearsheet, a foul-mouthed harlot, in her insulting tirade

against the drunken Pistol (act II, scene 4), says:

Away, you cut-purse rascal! You filthy bung, away! By this wine, I'll thrust my knife in your mouldy chaps and you play the saucy cuttle with me. Away you bottle-ale rascal! You basket-hilt stale juggler, you!

The word bung as used in "you cut-purse rascal! You filthy bung," has always been interpreted as meaning bung nipper or cut purse in the various glossaries and concordances relating to the expression. This interpretation was somewhat reinforced by the use of the words "knife" and "cuttle" in the lines which follow "You filthy bung." In Thomas Dekker and Thomas Middleton's *The Roaring Girle or Moll Cut-Purse*, London, 1611, pp. 173 & 181, the expression "nip a bung" is repeated in the text as "cut a purse" so that there is no question from the title and the text that bung then meant purse and that the practice of stealing pouch purses and their contents by slashing with a knife or cuttle was commonplace. One might assume that Shakespeare by using the word "bung" was making a simple pun tying together the association of the bung of a liquor barrel with Pistol's "bottle-ale" habits or the association of bung as a purse with Pistol's thievery habits. But these are belabored interpretations and are not really funny. A fact of great importance is that Shakespeare does not use the expression bung nipper, only bung, and no other use of bung by itself meaning cut purse has ever been located. For Shakespeare to have one of his characters call another "you filthy purse" is pointless. If Shakespeare had wished to use the expression "you filthy bung nipper," just as one now uses "you dirty crook," he would have. When he only used "you filthy bung" he must have had a good reason. The use of cut purse just before the use of bung was obviously a basis for the word bung to be used for a laughter producing pun.

Since the purse of that period was a leather pouch with a draw string and tied or attached to the clothing the question arises as to whether bung as applied to a purse had its origin in the similarity of its opening to the lower end of the digestive tract—the anal opening. If the word bung as a barrel stopper first gave rise to the anal connotation then the application to a sack type purse could have logically followed. A French word which we often use in English confirms this thesis. The word *cul* in French primarily refers to the anal opening. It was used as such as early as the thirteenth century (Albert Douzat, *The Etymological Dictionary of the French Language*) and is derived from the Latin word *culus* which has the same meaning. The expression *cul de sac* was and is commonly used in both French and in English as meaning a dead end street. This expression literally means the hole or opening of a sack and the physical similarity to the conformation of a dead end street resulted in a transference. The simi-

larity of structure and use of the opening of a sack and of a pouch purse is such that the English background to the word bung meaning a purse and the French background to the word cul de sac meaning the opening to a sack seem to be parallelisms.

With the foregoing usage of these words around 1600, we can see that Shakespeare's selection of the words "you filthy bung" apparently had only enough relationship to the idea of a purse or a cut purse to excuse their primary meaning of "you filthy anus" or "you filthy ass-hole."

In another of Shakespeare's plays there is found a convincing reinforcement for this interpretation. In the grave diggers scene from *Hamlet* (act V, scene 1) there is a reference to Alexander the Great and to Julius Caesar where the farcical outweighs the classical.

Ham. Dost thou think Alexander looked o' this fashion i' th' earth?

Ham. And smelt so? pah!

Hor. E'en so, my lord.

Ham. To what base uses we may return, Horatio! Why may not imagination trace the noble dust of Alexander till 'a find it stopping a bung-hole?

Hor. 'Twere to consider too curiously, to consider so.

Ham. No, faith, not a jot; but to follow him thither with modesty enough, and likelihood to lead it; as thus: Alexander died, Alexander was buried, Alexander returneth to dust; the dust is earth. Of earth we make loam, and why of that loam, whereto he was converted, might they not stop a beer-barrel?

Imperious Caesar, dead and turn'd to clay,
Might stop a hole to keep the wind away.
O that that earth, which kept the world in awe,
Should patch a wall t' expel the winter's flaw!

If the word bung-hole (tied in a few lines later to a beer barrel) merely means the hole in the barrel, than the thought is not funny and the word is poorly chosen for a comic scene. It if means the anus, then the words that precede and follow take on new meaning. The word base becomes a pun on the human anatomy. It then becomes apparent that Alexander has been converted to dust, to loam, to food, and into feces. The feces stops up the lower bowel and prevents the expulsion of flatus or gas from the anus. Then follows the simile of expelling the winter's flaw (flaw being a sudden gust of wind) by it's being held back by a patch in a wall.

As comic and crude as the above thesis might be, it can be proven conclusively that bung-hole meant anus to Shakespeare's listeners. The sea anemone was a marine organism commonly found in the Mediterranean Sea and elsewhere and was also known as the small red nettle. It feeds on

whatever small organisms happen to be in the water which is drawn into its top opening. In French this anemone was called in slang "cul de cheval" which literally translated is horse's anus. Randle Cotgrave wrote the first French-English dictionary in 1611 and defined "cul de cheval" as "A small and ouglie fish or excrescence of the sea, resembling a man's bung-hole, and called the red Nettle." That is clear and convincing evidence tying the words cul and bung together in meaning. Essentially its publication date shows that people in Shakespeare's time used the word bung-hole and understood his humor when he used bung-hole and bung as referring to the anus. This interpretation has been published with caution by Eric Partridge, in *Shakespeare's Bawdy* (Rev. ed., 1968), after a review of the facts given in numismatic lectures by me prior to the publication of this study.

To show that this meaning continued in the English language at the time the expression Bungtown originated in America, an important applicable definition is found in the second edition of Francis Grose's *A Classical Dictionary of the Vulgar Tongue* (1788). The expression, "Bung Upwards," is defined as "Said of a person lying on his face." This is also proof of the fact that bung and bung-hole were interchangeably used in relation to the anal opening.

The meaning of Bungtown seems to become apparent from the foregoing. It has always been a common practice to nickname small, dirty, backward communities, real or fictitious, in a derisive comic manner. The names of Podunk, Dumpville, Hicktown, Squewdunk, Shantytown, Junkville, and Mud Hole are in that category. The name Bungtown is merely another such term. As heretofore shown, it was applied to at least four American communities. The vulgar origin of a comic name is often easily forgotten by those who use it, assuming that they once knew the origin. When counterfeit halfpence were produced in a community already known as Bungtown the selection of the name Bungtown coppers was quite natural. What better derisive name could be selected for light or base metal counterfeits of English halfpence than Bungtown coppers.

The expression Bungtown coppers or Bungtowns was originally intended and used to apply to counterfeit English halfpence produced during the 1784-5 period in North Swansea, Massachusetts. It was quickly expanded by New Englanders so that by 1787, it meant any counterfeit halfpence as indicated by its first mention in writing. There was no distinction as to whether the counterfeit halfpence were made in America, in England, or Ireland; whether they were short weight or average; or whether they were of copper or mixed metal. By the early nineteenth century its meaning broadened and it was used as a comical expression to refer to any worthless or unacceptable copper coin circulating in America. The expression was never used in England. It was never applied to the

eighteenth century evasive legend halfpence struck and circulated in England until American numismatists made that error. It is hoped that the numismatists can restore this colorful American expression to its proper use and meaning at the time Bungtown coppers circulated.

Identifying the North Swansea Counterfeits

There has been little progress identifying what counterfeit halfpence were produced in North Swansea, Massachusetts. It can be assumed that, for quantity production of a low value coin, striking was more practical than casting. It is also logical that halfpence with the bust of George III were chosen for counterfeiting because these constituted the bulk of the circulating coppers during the 1784–5 period.



Great Britain, Halfpenny 1770

England had previously produced a modest amount of halfpence coinage under George III dated in each year from 1770 through 1775. Of this coinage, Peck in *English Copper Tin and Bronze Coinage in the British Museum 1558–1958*, (1964), pp. 231–2, records the number of pairs of dies for each date as 8 for 1770, 11 for 1771, 12 for 1772, 10 for 1773, 7 for 1774, and 4 for 1775. This aggregate of 52 pairs of dies would normally produce 52 varieties of genuine halfpence plus some combinations of dies. The quantity of varieties of George III halfpence in actual circulation is demonstrated by the collection of D.T. Batty, who published a list of 35,000 different copper coins in *Descriptive Catalogue of the Copper Coinage of Great Britain Ireland British Islands and Colonies*. A portion of Volume III published in 1890 attempts to describe by variety and date his collection of halfpence, genuine and counterfeit, which aggregated 26 for 1770, 55 for 1771, 54 for 1772, 93 for 1773, 87 for 1774 and 252 for 1775. This overwhelming difference between the Peck and Batty figures is accounted for by the number of counterfeit pieces included in the Batty listing of 567 varieties. The exact origin of most coun-

terfeits in this quantity of varieties is undeterminable when evidence cannot be gleaned from the coins themselves and when there are no records kept by the counterfeiters.

There have been a few counterfeit halfpence which have been tied into American sources. Crosby was cognizant of fictitiously-dated counterfeit halfpence—those dated in years during which the English Mint did not date halfpence. Wyllys Betts, in 1886, published *Counterfeit Half Pence Current in the American Colonies* and showed that certain fictitiously-dated halfpence dies were muled with, and made in the same style as, the coinage of Vermont and Connecticut. In *ANSCentPubl.*, 1958, I demonstrated that the dies for a 1776 fictitiously-dated counterfeit English halfpenny were cut with punches identical to those used to make Vermont and Connecticut coinage dies. Thus the further review of fictitiously-dated counterfeit British halfpence could be of help in the determination of what pieces were coined at North Swansea.

Batty also listed his fictitiously-dated halfpence and showed the number of his varieties of a date as 2 for 1766, 8 for 1776, 4 for 1777, 4 for



Counterfeit British Halfpenny with date 1776 (struck over Spain, 8 Maravedis)
(Struck at Machin's Mills, New York)

1781, 1 for 1784, 1 for 1787, and 1 for 1794. James Atkins in listing evasive legend halfpence includes one 1778 and one 1787 with otherwise normal legends (*The Tradesmen's Tokens of the Eighteenth Century*, 1892, 226–7). Ernest Bramah, *English Regal Copper Coins*, 1929, repeated what Batty included and reported hearing of a 1785 date. Counterfeit halfpence with the 1785 date do exist, as does one dated 1769. L.F. Hammond in “English Copper Coins and Counterfeits,” *Proceedings of the Croydon Natural History and Scientific Society*, 1929, mentions his large collection of counterfeit halfpence and illustrates his fictitiously-dated pieces dated 1776 and 1784. Vlack prepared photographic plates in 1974 entitled *Early English Counterfeit Halfpence Struck in America*, combining illustrations of pieces from the collections of Ted Craige, Eric P. Newman, and himself. He adds several varieties to those previously published by him and assigns American origin to the following number of



Counterfeit British Halfpenny with date 1784 (of American origin)

fictitiously-dated pieces: 2 for 1776, 1 for 1777, 2 for 1778, 1 for 1784, 1 for 1786, 4 for 1787, and 1 for 1788. He made an assignment of American origin to all known varieties of 1778, 1784, 1786, 1787, and 1788 counterfeits, and it is clear that Machin's Mills was the origin of all pieces dated 1778, 1787, and 1788.

Since we know that the North Swansea activities were taking place during the 1784-5 period, the focus of our attention naturally falls on the 1784 and 1785 counterfeit halfpence. The 1784 piece is thin, poorly struck and of poorly refined copper. Hammond (p. 102, pl. XII, 65) described it as follows:

The first is rare and I have not seen a similar specimen. The king's head is small on a thin sinewy neck, the whole resembling a death's head. This is very curious in view of the fact that the tendency is for the king's bust to be coarse with a bull-neck and bloated features. . . .

A few examples of the 1784 piece have been located in America. Its figure of Britannia resembles closely the early 1785 Connecticut reverse dies. The emaciated George III bust would have been the way a patriotic American counterfeiter would have wanted George III to appear in 1784.

The 1785 counterfeit halfpenny is from carefully cut dies, is well struck, and is virtually of full weight of pure copper. Yet it was not struck by accident with a date ten years after the last previous British halfpence were dated.

It is not certain that the North Swansea coiners did not counterfeit coppers with normal dates of issue. This was part of the practice a few years later at Machin's Mills in making pieces dated 1747, 1771, 1772, and 1774. There are also Machin's Mills obverse dies paired with both normally-dated reverses and fictitiously-dated ones. Thus, if North Swansea counterfeiters had wanted to conceal their activities, they would have tended to use dates carried by the commonly circulating genuine and counterfeit coppers. The probabilities are that no concealment was needed and they chose to date their counterfeit coppers in the year of their striking, just as Machin's Mills coiners did in 1787 and 1788.

It would therefore be a tempting speculation to feel that the counter-

feit coppers dated 1784 were of North Swansea origin or were the counterfeit coinage referred to in the application for the Connecticut coinage franchise.

Slow Removal from American Circulation

After 1789, genuine and counterfeit British halfpence, official coppers of the individual states, and Nova Constellatio and other copper tokens continued to circulate at their reduced values. The United States Mint began the production of copper cents and half cents in 1793 and tried to produce enough to satisfy American small change requirements. It was provided by the Act of Congress passed May 8, 1792, that when \$50,000 in copper coinage had been minted by the U.S. Mint, the Treasurer of the United States was to give the public notice by proclamation and thereafter all other copper would be prohibited from circulation. When this point was reached just prior to January 1, 1800, it was called to the attention of the Treasury officials but no proclamation was ever issued. The needs of the public had not been satisfied by the copper coinage of the U.S. Mint and it was apparently thought necessary to continue in circulation all of the coppers which were acceptable. To this heterogeneous group was added quantities of Hard Times Tokens during the Jackson and Van Buren administrations and it was not until 1857 that United States coinage finally was ample in supply. As a result the American coppers produced during the Confederation period are often found so worn as to be barely readable. American and English counterfeits of English halfpence suffered similar natural abrasion from circulation. There was never any federal restriction on the use of any of them prior to 1864, and the acceptance or rejection by the public was relied upon to govern their status. From time to time, as the fluctuating price of copper would equal or rise above the circulating value of these coins, many of them went into the melting pot. As a result, it is interesting to find that some varieties of American-made counterfeits of British halfpence are unique or represented by just a few known pieces out of a large original issue, just as some varieties of coppers coined under state franchises are likewise rare. The British halfpence, good and bad, served as small change in America for as long after Independence as they had served during the colonial period.

CHAPTER 11

Vermont Copper Coinage

Kenneth E. Bressett

In the April 14, 1787 issue of *The Massachusetts Centinel* the following news account was reported from Providence, dated March 8:

A new copper coinage has lately appeared. On one side around the edge is this Latin inscription: VERMONTENSIVM RES-PUBLICA, 1786.”—(*The State of Vermont*, 1786.) encircling a representation of the Great Mountain, which divides that State from north to south, nearly in the middle, heretofore called the *Green Mountain*, from which it takes its name *Vermont*; being compounded of two French Words . . . The lofty timber for which that country is remarkable, is represented growing among the Mountains, and from behind one of them the sun in his effulgent glory appears rising . . . Beneath, in the open plain is represented the PLOUGH, as emblematical of the State. On the opposite side of the copper is a resplendent and full-illuminated star, with the eye of beneficence in the centre, surrounded with thirteen other stars, on the out-side whereof around the edge is this inscription:—QUARTA DECIMA STELLA,” [*the fourteenth Star.*] The coinage is well executed; and the Device is sentimental, ingenious, and beautiful.

More than a year had passed before surrounding states received this announcement or saw more than a few of these coins bearing Vermont’s bid to become the fourteenth state. Since that time, numerous accounts have been written to explain the complex chain of events responsible for the extraordinary Vermont coppers dated 1785 to 1788. References are in the bibliography at the end of this article. Much of the story has remained obscure and can now be reconstructed only through numismatic evidence from existing coins. Conclusions presented here are based on the study of a relatively large number of these pieces and examination of their features in the light of modern research and understanding. Special attention has been given to the significance of die combinations and orientation, progressive die failure, overstruck groupings, planchet preparation, and the use of recognizable common punches in die preparation.

Existing documents, cited in Crosby, pp. 177–9, show that the Vermont legislature, in an Act dated June 15, 1785, granted Reuben Harmon, Jr., of

Rupert, in the County of Bennington, the exclusive right to coin coppers within the state for a term of two years, beginning July 1, 1785.

Harmon had petitioned for the coinage right because he had secured a quantity of copper and wanted to construct a mint and make coins to facilitate trade. The composition of the coins was specified: of good and genuine copper, with each piece to weigh one-third ounce troy (10.37 grams). It was soon discovered that the specified weight exceeded that of other coins used in the United States. An Act was passed by the Assembly on October 27, 1785, changing the terms to "not less than four penny-weight, 15 grains each" (7.19 grams).

The inexperienced Harmon constructed his mint at Rupert and sought the assistance of a New York firm in order to obtain necessary dies. The silversmith shop of Daniel Van Voorhis, John Bailey, and William Coley, 27 Hanover Square, New York City, was selected (Everett T. Sipsey, *ColN*, October 1964, p. 62).

Both Van Voorhis and Coley, who later became partners with Harmon in the Vermont coinage operation, continued their business in New York until sometime in 1786. Coley, who apparently cut the dies for the Plow-type coinage, may have done the work in New York, where appropriate tools and facilities would be available to him.

Plow-Type Coinage of 1785-6

The three varieties of Plow-type coins dated 1785 were made from composite dies sharing common punches for lettering, date, trees, and other features. Order of emission was most likely 1-A, 2-B, and 3-C. These varieties are struck on crude, imperfect planchets and have dies oriented ↑↑, a feature found additionally only with the 1786 combination 4-D. All other Vermont coppers normally have dies aligned ↑↓. The few exceptions to this are noted with the die descriptions. Abnormal alignment is a feature common only to the last series of coins made at Machin's Mills from discarded, worn, or rejected dies on small, rough planchets.

Apparently the original weight standard was never followed, although specimens of 1-A and 2-B are found on planchets of varying thickness and weight. Coins of variety 1-A, in particular, seem to fall into two groupings: light pieces weighing approximately 7.13 to 7.78 grams, and heavy pieces weighing approximately 8.42 to 9.07 grams.

Plow-type coinage of 1786 consists of three varieties which employ three obverse and two reverse dies (4-D, 5-E, and 6-E). Many of the punches used to prepare these dies are identical with those used on the 1785 coinage. The reverse designs of the 1786 coins, eye surrounded by sunburst, closely copy the pointed rays Nova Constellatio coppers and are

unlike the 1785 Plow-type Vermont coins, which copy the Nova coppers with blunt rays.

Bust Coins of 1786-7

To provide for the future of his operation, Harmon negotiated a new contract with the state on October 24, 1786, when a bill was signed extending the terms of his franchise for an additional eight years from July 1, 1787 (Crosby, pp. 182-4). This contract also provided that, henceforth, devices on the Vermont coins should have on one side a head, with motto AUCTORITATE VERMONTENSIVM, abridged, and on the reverse a woman, with the letters INDE: ET: LIB: for Independence and Liberty. Apparently, Harmon had shown a current Connecticut coin to the Vermont Assembly and suggested that its device, similar to the prevalent British halfpence then in circulation in America, would provide their coppers with greater acceptability in Vermont and surrounding states.

Coley, incapable or unprepared to produce a bust design on short notice, sought guidance from others in the trade. His first attempt at making a suitable coin, the Baby Head of 1786 (7-F), copies the style (e.g., Miller 1786 2.1-A and 3-D.1) of dies prepared for imitation Connecticut coppers by James F. Atlee of the Rahway, New Jersey mint. It is also possible that Atlee may have assisted Coley in preparing the central figures for his Vermont coin. The letter and date punches are distinctly Coley's work, many of them identical to those used on his 1786 Plow-type dies.

Additional dies of the newly adopted design were needed quickly and in larger quantities than before; at this point Harmon and Coley must have learned about the mass production hubbing techniques recently developed by Abel Buell, the Connecticut coiner.

The Bust Left coins next produced by Coley closely copied the Connecticut design used by Buell throughout 1786 and 1787 but are definitely not from worn or reworked Buell hubs. The unfounded story of transported Buell dies (Crosby, pp. 188-9) is negated by the numismatic evidence which shows that special device punches were used to prepare the Bust Left dies of Vermont. These punches closely copy the hubs developed by Abel Buell for his Connecticut coppers, but differ sufficiently in minute details to establish the fact that they were prepared especially for making the Vermont dies. The shield on 8-G was decorated with a grain sheaf by separate hand finishing (Sanborn Partridge, *ColN* 1974, p. 438).

It was more likely through the cooperation of Abel Buell that unique device punches were prepared for the head and seated Liberty figure used

on the group of Vermont Bust Left coins designated 8-G, 9-H, and 9-I. Legends were added to these dies by Coley from the identical punches used on his earlier Baby Head coin.

The striking of Bust Left coins continued for the final few months of 1786 and undoubtedly well into 1787. The single reverse die dated 1787 (I) broke quickly, and its obverse (9) was again combined with a 1786 die to produce an additional quantity of the 9-H variety as is confirmed by a die crack progression.

Early in 1787, Coley and Van Voorhis, perhaps disappointed in the Vermont operation, began to think about future plans for expanding their coining activities. On February 16, they petitioned for a New York coining franchise (*Journal of the Assembly of the State of New York*, 1787, p. 53). Failing this, Coley left for Vermont and joined in partnership with Reuben Harmon.

Bust Right Coinage of 1787-8

About this same time, Thomas Machin of Newburgh, New York, was also thinking seriously about obtaining a coinage contract with the United States or with individual states. On April 18, 1787, he entered into an elaborate agreement with several partners, including James F. Atlee, who was to provide coinage implements and assist him in a coining operation. Acting quickly, on June 7, 1787, Machin concluded an agreement with Harmon, Coley, and Van Voorhis to share in their Vermont coinage contract and coining activities. The relevant documents are published by Crosby, pp. 192-202.

It seems likely that Atlee must have convinced the Vermont coiners that his services, through the Machin's Mills operation, would provide Harmon with a ready supply of much-needed dies. Under terms of the agreement, the Vermont coiners gave up 60% of their franchise for 40% of the profits of the Machin's Mills operation.

All Vermont dies produced after July 1787 were the work of James Atlee. This point was successfully demonstrated by Newman in *ANSCent-Publ*, 1958, pp. 531-42, where he explained Vermont's use of an existing Atlee device punch with seated Liberty, and a British emblem on the shield. When coinage with the new dies began, an alternate source of copper was also employed. An Act passed in New York, April 20, 1787, had begun to drive from circulation all light weight coins, the Nova Constellatio coppers in particular. The Machin's Mills and Vermont coiners capitalized on the opportunity to purchase quantities of these at discount and to reissue them stamped with their dies. Since Vermont coins were required to weigh only 7.19 grams and the Nova Constellatio cop-

pers were usually heavier, many of them were fed directly into the press.

Nearly the entire 1787 Bust Right group of Vermont coins was produced by overstriking. The first variety (10-J) has not been seen overstruck, perhaps because of its extreme rarity. The combination 10-K is occasionally seen overstruck, and nearly all the 11-K and 12-K pieces show traces of the Nova undertype. No other coins produced at the Rupert mint were intentionally made as overstrikes.

Coinage continued at the Rupert mint, using Atlee's dies, throughout 1788 and the early part of 1789. Varieties produced included 13-L, 10-L, 10-M, 10-N, 10-O, 10-P, 10-Q, 10-R, 14-S, 15-S, 16-T, and 16-U (early striking), in that order.

Machin's Mills Coinage

Under terms of the Harmon-Machin contract, after mid-1787, coinage was simultaneously carried on in Vermont by Harmon and at the newly established Machin's Mills enterprise in Newburgh, New York, under the direction of Thomas Machin and his partners.

The 1787 coin with BRITANNIA reverse (17-V) was probably the first Vermont piece produced at Newburgh. Its reverse die had been previously used by the New York coiners in combination with a George III obverse to produce imitation British halfpence, a fact first demonstrated by C. Wyllis Betts in 1886. From 1787 to 1789, imitation halfpence were the major portion of their coining activities. The 1788 Vermont INDE*ET LIB* (18-W) must have been next, as this variety is closely associated with the former through style and punches.

Atlee later produced several other Vermont dies used exclusively at Machin's Mills, which can be recognized by the use of stars in the legend. Vermont coinage executed at Newburgh throughout 1788 consisted mostly of coins overstruck on Irish halfpence dated 1781 or 1782 (many of them, no doubt, light weight counterfeits). Varieties produced included 19-X, 20-X, 21-Y, 21-U, and some of the early strikings of 22-U, in that order. Coinage of these pieces was carried on in New York during 1788 and well into 1789.

When the Rupert facility closed early in 1789, remaining dies were taken to Newburgh. These dies included obverse 16 and reverses U and S. The combination 16-U, when first produced in Newburgh (immediately after 22-U), was part of the group overstruck on Irish halfpence. Amazingly, these dies were rejoined at a later date for yet another striking before coinage operations ceased.

The variety 16-S seems to have been made immediately after the overstruck 16-U, but for some unknown reason most of these coins are rela-

tively well struck and on clean planchets.

The Final Coinage

The remaining output at Machin's Mills consisted of light weight, unattractive coins made on small, imperfect planchets and from rejected, worn, or muled dies.

Varieties produced in the last coinage effort included 23-S, from a rejected die with backward C in AUCTORI; 24-U using a George III obverse intended for use in Machin's light weight halfpence operation; 25-U, a muling of the worn Connecticut obverse M.1 (one of Atlee's old dies); 16-U and 22-U, late pairings of these worn out dies which can be identified by the shattered reverse die state; and 26-Z, which, according to Breen, *ANSCentPubl*, 1958, p. 145, consisted of a rejected obverse combined with the 1785 IMMUNE COLUMBIA reverse recovered from Walter Mould's Morristown mint when Machin purchased his old equipment in 1788. All of these were made at a time when the value of copper was sagging. When the value finally collapsed, coins fell to a quarter of their earlier worth, making further coinage unprofitable.

It was thus that coinage for the "Fourteenth Star" dimmed, flickered, and died, leaving only the few thousand remaining specimens to testify to this interesting historical episode.

Exceptional Pieces

A number of unusual pieces connected with the Vermont series should be explained. Most prevalent are the numerous coins which were double struck. Occasionally these give the appearance of an unrecorded die or a piece overstruck on a different coin. Any apparent exceptions to the varieties listed in the following tabulation should be carefully examined for double struck features, which are not uncommon in this series.

The most remarkable double struck coins are those which somehow flipped over in the press and appear to show a single, identical design on both front and back. Such pieces are mentioned in Crosby (p. 187) and had appeared at auction as early as 1865. Von Bergen included them in catalogues published in 1889 and 1901. Three such coins, perhaps the identical pieces (varieties 2-B, 3-C, and 7-F), were for some time in the Hall Park McCullough Collection, in the Bennington Historical Museum, but were subsequently stolen.

Vermont coins overstruck on other coins occurred in only two groupings as described in this study and, so far as is known, only on Nova



Double-struck coins showing identical obverse on both sides (left, 2-B; right, 3-C)

Constellatio coins when made at Rupert and only on Irish halfpence when made at Newburgh.

Occasionally Vermont coppers can be recognized as the undercoins used by other states for overstruck issues.

Alterations seen include a composite coin made by joining obverse 1



Hand-cut alteration of 23-S with date changed to 1787

with reverse D, the two halves being soldered together. A more spectacular alteration is the 1788 AUCTORI variety (23-S) with obverse and reverse reengraved and date changed to 1787 (see illustration).

Pieces with private counterstamps of no special significance are occasionally seen. An example of 5-E counterstamped GW appeared in a 1951 Hans Schulman auction. A coin in the Johns Hopkins University Numis-

matic Collection (10-L) is stamped N YORK.

The variety known as Ryder-Richardson 5 was first mentioned in *Dickeson's Numismatic Manual*, 1860. This piece is a 1785 Plow-type copper with sun rising from the left side of the mountain and the date in the field between the plow and legend. The variety is now acknowledged as a contemporary counterfeit. Three or four struck originals exist. An equal number of additional pieces are cast reproductions, probably produced for collectors ca. 1865.

A rather deceptive electrotpe copy of 4-D has been seen. It appears to be of a style produced between 1870 and 1890.

Two cast reproductions made by Dory Development Corp. in 1967 are frequently encountered. One is a copy of the 1785 3-C with certain features altered and strengthened. The plow in particular has been made smaller, placed high in the field, and tipped sharply, with plow beam pointed upward. The second is an accurate copy of the 1786 6-E.

Material presented in this article was assembled through the cooperation and assistance of many people. Walter Breen, in particular, supplied information concerning rarity, die identities, and sequence in a joint study with the author conducted in 1957.

Information pertaining to the diesinking techniques of Abel Buell, uncovered by James Spilman, has been particularly helpful. Johns Hopkins University and the Bennington Historical Museum made their collections available for detailed study of die progression. The Bennington Museum's Hall Park McCullough Collection, which was stolen in 1965, and the Museum's reassembled McCullough-Vlack Collection formed the basis for most of the illustrations.

Special thanks are also due those owners of major collections of Vermont coppers who so kindly made them available for study and photography.

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Explanation of Die Descriptions

The two basic designs used for Vermont coins form a unique dichotomy. The plow design is original and particularly well suited to the State, with its wish for admission to the Union. In contrast, the bust design was at first an attempt to imitate the coins of Connecticut which were fashioned after British halfpence. Later, devices were used which were barely a step removed from exact copies of the British coins. The head is obviously that of King George III, and the seated figure is Britannia, even to the inclusion of the British crosses in the shield. Punches for both of these devices were originally made by James Atlee for use on imitation British halfpence dies, and pressed into service to produce Vermont dies without regard for their symbolic value (Newman, *ANSCentPubl*, 1958).

Brief descriptions are given to distinguish the 26 obverse and 26 reverse

dies that were combined to produce 38 separate varieties of coppers associated with the Vermont coinage. Included in this list are the anomalous dies which were muled with standard Vermont dies through expediency.

Varieties are listed in order of emission as nearly as can be determined by evidence of progressive die deterioration or wear. Minor characteristics are not always noted unless they have some bearing on identification, or serve to distinguish between separate strikings. Dies which were reunited at various times do not constitute separate varieties, but are included here for continuity in the order of emission. Groupings indicate which dies were most likely used at each mint, and approximately when striking occurred.

The early plow-type coins have dies aligned ↑↑. With few irregularities, all of the bust-type coins have dies aligned ↑↓ in the usual manner of British coins of the period. The significant exception to this is seen in what must have been the last coinage of Vermont pieces at Machin's Mills, when little care was taken to adjust the dies properly.

Illustrations in most cases are of exceptionally well-preserved specimens. Vermont coppers are usually seen struck on crude, defective planchets, and in well-worn condition. The diameter, thickness, and weight vary considerably among all of these coins. A photograph of the 1785 counterfeit known as Ryder 5 has been added as a final illustration in the plates to aid in identification.

The RR numbers given with each description refer to Ryder-Richardson. Richardson, *Num* 1947, used the old Ryder numbering system first published by Ryder. Numbers 33 and later were unknown to Ryder, being added by Richardson; numbers 36 and later were unknown to Richardson, being added in the 1950's by various researchers.

Condition Census is described by William H. Sheldon in *Penny Whimsy*, New York, 1958. The first figure is the numerical equivalent of the condition of the finest piece seen. The second figure is the average condition of the next five finest coins. 2 fair, 4-6 good, 7-10 very good, 12-15 fine, 20-30 very fine, 40 extremely fine, 50 about uncirculated, 60-70 mint state.

Estimated rarity and condition census given for each variety are based on personal observation and opinion, and should not be construed as absolute.

Reuben Harmon Mint
Dies by William Coley

PLOW DESIGN

1785 VERMONTS or VERMONTIS
 (After July 1, 1785)

- 1-A 1785 VERMONTS. Ray points to period. RR2

Obverse 1. VERMONTS. RES. PUBLICA · 1785 · Sun ray points directly at period after RES. Late state die crack progresses from right edge of 8 to a massive V-shaped break through plow and into mountain.

Reverse A. STELLA. QUARTA. DECIMA · One star is slightly to the right below final A in QUARTA.

Estimated number extant: 175–200. Condition census: 60–30.

- 2-B 1785 VERMONTS. Ray points to right of period. RR3

Obverse 2. VERMONTS. RES. PUBLICA · 1785 · Sun ray points to right of period after RES. Late die flaw shows at right of date.

Reverse B. STELLA. QUARTA. DECIMA · One star is directly below stop after QUARTA. Comma-like flaw is usually present following the final A in DECIMA.

Estimated number extant: 35–50. Condition census: 50–25.

- 3-C 1785 VERMONTIS. RR4

Obverse 3. VERMONTIS. RES. PUBLICA · 1785 ·

Reverse C. STELLA. QUARTA. DECIMA · One star is slightly to the left below final A in QUARTA. Legend begins at one o'clock when eye is upright.

Estimated number extant: 80–100. Condition census: 45–25.

1786 VERMONTENSIMUM
 (Before October 24, 1786)

- 4-D 1786 VERMONTENSIMUM. Ray points between E and S. RR6

Obverse 4. VERMONTENSIMUM · RES. PUBLICA. 1786.

Mountain range with seven trees. Late die crack begins at rim and progresses upward between 17 and 86 to plow.

Reverse D. STELLA · QUARTA · DECIMA · Progressive die break below QUARTA is usually present.

Estimated number extant: 175–200. Condition census: 60–25.

5-E 1786 VERMONTENSIVM. Point of plow above 1. RR7

Obverse 5. VERMONTENSIVM · RES. PUBLICA · 1786 · Mountain range with nine trees. Point of plow is above 1.

Reverse E. STELLA · QUARTA · DECIMA. An additional small dot is adjacent to stop between A and D. Earliest die state, apparently before 6-E.

Estimated number extant: 150–175. Condition census: 65–50.

6-E 1786 VERMONTENSIVM. Point of plow above 7. RR8

Obverse 6. VERMONTENSIVM · RES. PUBLICA · 1786 · Mountain range with nine trees; only right side of tree on right visible. Point of plow is above 7. Dies aligned ↑ ↓ like all later coins.

Reverse E. STELLA · QUARTA · DECIMA. See previous description.

Estimated number extant: 80–90. Condition census: 60–30.

BUST DESIGN/LIBERTY SEATED

BABY HEAD (After October 24, 1786)

7-F 1786 Bust right. Baby Head RR9

Obverse 7. AUCTORI: VERMON: Large head facing right. Low relief and hollow cheeks gives a worn appearance to all of these coins.

Reverse F. INDE. ∴ ET:LIB: 1786. Staff topped with small liberty cap. Shield decorated with four grain sheaves. Date below double line.

Planchets almost always defective. Die alignment varies to nearly every position.

Estimated number extant: 80–100. Condition census: 40–20.

1786, 1787 BUST LEFT (BUELL TYPE)
(Before July 1787)

- 8-G 1786 Bust left, legend distant from head. RR10

Obverse 8. VERMON: AUCTORI: Mailed and laureated bust left. VERMON: is distant from head. Minor crack develops at edge and extends through E up into field opposite eye.

Reverse G. INDE :: ETLIB 1786. Date below single line. Shield decorated with single grain sheaf which is indistinct or missing on most specimens.

Planchets always crude; design lacking in details.

Estimated number extant: 60–70. Condition census: 20–12.

- 9-H 1786 Bust left, legend close to head. Arm doubled. RR11

Obverse 9. VERMON: AUCTORI Mailed and laureated bust facing left. VERMON: ends close to forehead. C high and distant from T. I low and close to shoulder. Die crack develops at right base of U and descends in an arc touching hair at two points after this die is later combined with the 1787 reverse I, indicating an additional striking of the 9-H combination after the 1787 reverse die shattered.

Reverse H. INDE :: ETLIB: 1786. Date below single line. Shield apparently not decorated. Central design doubled at arm with staff, and hand holding branch. Border of large cog-like denticles. Crack develops at knee and progresses to base of I upward to right top of N.

Planchets nearly always rough and crude.

Estimated number extant: 80–100. Condition census: 20–10.

- 9-I 1787 Bust left. Die break obliterates date. RR15

Obverse 9. VERMON: AUCTORI See previous description. Crack at U not developed. Depression at border above head caused by reverse die break.

Reverse I. INDE :: E TLIB: 1787. Shield apparently not decorated. E distant from T. Border has thin denticles. Hand with branch points to colon. Date is nearly obliterated by massive die break which extends across entire exergue.

Planchets are usually crude and rough. Design weakly struck.

Estimated number extant: 8–10. Condition census: 30–10.

Dies by James F. Atlee

STANDARD BUST RIGHT DESIGN
(After July 1787 to 1789)

- 10-J 1787 Liberty high, bottom of shield has scroll. RR34

Obverse 10. VERMON· AUCTORI. First period opposite center of N touching head, the second above base of I and centered between it and point of bust. V points between fillet ends. Small wart-like die chip on bridge of nose. Die crack develops early from neck to chin. This obverse is later combined with reverses K through R.

Reverse J. INDE ETLIB 1787. Date below double line. Three large misshapen border denticles left of date, below feet. Liberty sits high in field with bottom of shield supported by a scroll. Die crack develops at top center of shield and progresses in an arc through field to T.

Three specimens recorded. Condition census: 15–12.

- 10-K 1787 Dotted obverse legend. Shield touches line. RR14

Obverse 10. VERMON· AUCTORI· See previous description.

Reverse K. INDE ETLIB 1787. Legend not as close to figure as on reverse J. Liberty well centered with base of shield embedded in exergual line. Die begins to crack at denticles above head but does not advance far until when combined with obverse 11 and later with 12.

Occasionally overstruck on Nova Constellatio coppers.

Estimated number extant: 175–200. Condition census: 65–25.

- 11-K 1787 Unpunctuated legend. Bust low and to left. RR12

Obverse 11. VERMON AUCTORI Legend ends distant from bust which is set far to the left. Large horizontal crack develops from E to ribbon; a later crack extends from RM to hair.

Reverse K. INDE ETLIB 1787. Die state later than when used with 10-K, but earlier than the 12-K combination. Die crack above head well advanced, additional crack starts at top left of L.

Nearly always overstruck on Nova Constellatio coppers.

Estimated number extant: 200–300. Condition census: 60–25.

- 12-K 1787 Unpunctuated legend. Bust well centered. RR32
Obverse 12. VERMON AUCTORI Unpunctuated, widely spaced legend ends touching bust. Heavy break from head through U and C to border above T.
Reverse K. INDE ETLIB 1787. See previous description. Die cracks now well advanced with massive break above head and crack through tops of ETL.
 All seen are overstruck on Nova Constellatio coppers.
 Estimated number extant: 2–3. Condition census: 30–10.
- 13-L 1788 Widely spaced letters and date. RR19
Obverse 13. VERMON· AUCTORI· Widely spaced legend with centered dots after N and I. Early die break encircles rim above letters from first R, clockwise to a point directly beneath bust.
Reverse L. INDE ETLIB 1788. Widely spaced letters and date. Single exergual line. Bottom serif missing on N. Die cracks do not develop until this reverse was next used with obverse 10.
 Estimated number extant: 35–40. Condition census: 50–25.
- 10-L 1788 Compact obverse legend. Widely spaced date. RR20
Obverse 10. VERMON· AUCTORI· See previous description. Deterioration now slightly more advanced than with earlier use of this die.
Reverse L. INDE ETLIB 1788. See previous description. In late state, die buckles in upper central areas from E to near ETL. Crack extends from arm through E in INDE.
 Estimated number extant: 70–75. Condition census: 40–25.
- 10-M 1788 Dotted obverse legend. Heavy upper exergual line. RR37
Obverse 10. VERMON· AUCTORI· See previous description.
Reverse M. INDE ETLIB 1788. Widely spaced letters. Date spaced 1 788 below double line; top line about twice the thickness of parallel bottom line, and covered by bisecting die crack at extreme right. B nearer date line than on any other variety.
 Estimated number extant: 2–3. Condition census: 15–8.
- 10-N 1788 Dotted obverse legend. Date crowded to right. RR38
Obverse 10. VERMON· AUCTORI. See previous description.

Reverse N. INDE ET LIB 1788. Legend widely and evenly spaced. Date below single line. 1 low, 7 higher, 88 higher; all numerals to right with final 8 near curl of shield. Hand points between DE.

Estimated number extant: 3–4. Condition census: 12–8.

- 10-O 1788 Dotted obverse legend. Converging date lines. RR23

Obverse 10. VERMON· AUCTORI. See previous description. Die begins to show further deterioration at N and above head.

Reverse O. INDE ETLIB 1788. Wide evenly spaced date below double exergual line which is not parallel, and converges to right. Late die state shows break from rim behind head to pole.

Estimated number extant: 70–75. Condition census: 60–25.

- 10-P 1788 Dotted obverse legend. Even date; double line. RR36

Obverse 10. VERMON· AUCTORI. See previous description.

Reverse P. INDE ETLIB 1788. Liberty sits high in field with large supporting curl at bottom of shield. Date is evenly aligned below parallel double exergual line. B distant from shield; hand is opposite E.

Estimated number extant: 10–12. Condition census: 30–12.

- 10-Q 1788 Dotted obverse legend. Very low 7 in date. RR22

Obverse 10. VERMON· AUCTORI. See previous description. Dot-like die break begins to show at right truncation of bust. In late state break starts at period after I.

Reverse Q. INDE ETLIB 1788. Liberty sits high in field with large supporting curl at bottom of shield. Date below parallel exergual line; 7 is very low. Late bulging die failure extends from knee through field to arm.

Estimated number extant: 35–25. Condition census: 45–20.

- 10-R 1788 Dotted obverse legend. High 88 below single line. RR21

Obverse 10. VERMON· AUCTORI. See previous description. Dot on truncation now rather large. Break at period after I enlarges and extends to border in the final use of this die.

Reverse R. INDE ETLIB 1788. Liberty sits high in field with large supporting curl at bottom of shield. Date below single line; 17 low, 88 high and touching line. Progressive die break starts

early and grows from border through first 8 then across knees upward to arm holding branch.

Estimated number extant: 40–50. Condition census: 40–15.

- 14-S 1788 Unpunctuated legends. Curved exergual line. RR17
Obverse 14. VERMON AUCTORI Head well centered with evenly spaced letters. N close to hair. V almost touches corner of mail.
Reverse S. INDE ET LIB 1788. Single exergual line bent down at ends; close date touching line. Hand with branch opposite D. This die was next combined with obverse 15, and later taken to Newburgh where additional varieties were produced.
 Estimated number extant: 35–50. Condition census: 35–20.
- 15-S 1788 Single dot above head. Curved exergual line. RR16
Obverse 15. VERMON. AUCTORI Breastplate covered with small dots. Legend divided by small dot directly above head. This dot fades gradually and is usually not visible on late strikes.
Reverse 3. INDE ET LIB 1788. See previous description. In late state small break develops at border and extends to E of INDE. Die begins to crumble around border, from head through ET LIB. See 16-S and 23-S for additional use of this die after it was taken to the Newburgh mint.
 Estimated number extant: 400–500. Condition census: 60–30.
- 16-T 1788 Crosses in both legends. Double exergual line. RR26
Obverse 16. VERMON+ AUCTORI+ Legend has small cross after N and I. Large head nearly touches border at top. Faint crease across neck. In later use of this die the crease develops into a massive die break. See 16-U and 16-S for details concerning additional use of this obverse at both the Rupert and Newburgh mints.
Reverse T. INDE+ ET·LIB+ 1788. Double exergual line which seems to cross at point above 78. Large die crack is always present extending from E through neck and on to second E.
 Estimated number extant: 10–12. Condition census: 30–15.
- 16-U 1788 Crosses in both legends. Single exergual line. RR25
Obverse 16. VERMON+ AUCTORI+ See previous description.

Die crack at neck now more advanced than when used for 16-T. Progressive stages of the crack can be followed from its beginning as a thin line, to a bulging strip 5.5 mm. long.

Early in 1789 this die was taken to Newburgh where it was next used to produce an additional quantity of the 16-U combination by overstriking on Irish halfpence. These can be distinguished by the slightly more advanced state of both obverse and reverse dies. Immediately after the overstriking this obverse was used to make combination 16-S, where the die crack has extended to approximately 6 mm.

Later, perhaps early in 1790, obverse 16 was again combined with reverse U to produce a limited quantity of pieces on small, rough planchets. This time the dies were not properly aligned and both obverse and reverse appear to have shattered.

Reverse U. INDE+ ET·LIB+ 1788. Date below single line. Top of T always weak; hand with branch opposite upright of D. Die remains unbroken during this first marriage with obverse 16, and is then taken to Newburgh to produce overstrikes in 1789.

In subsequent use, progressive deterioration occurs throughout combinations 21-U, 22-U, 16-U (overstruck), 24-U, 25-U, 16-U (where it begins to shatter), and 22-U (in terminal state).

Estimated number extant:	Condition census:	
Rupert, early die state	200-250	55-25
Newburgh, overstruck	50-60	20-15
Newburgh, shattered dies	2-3	10-3

Machin's Mills Mint

Bastard dies by James F. Atlee
(After July 1787)

17-V 1787 BRITANNIA reverse. RR13

Obverse 17. VERMON AUCTORI Small round face with pointed nose. Beginning die break usually present at rim near point of bust; this gets progressively larger and very late joins a massive vertical crack that bisects the bust.

Reverse V. BRITAN NIA. 1787. Very large seated figure with breasts partially exposed. Date below single line. Legend and date always weak, as these features were either worn or intentionally removed from the die. In late state a massive die crack covers left half of date area, and a heavy flaw runs from head to second N.

This die was earlier combined with several GEORGIUS III REX obverses (Vlack 18, 19, 20, and 21 II—87C) to produce imitation light weight halfpence.

Estimated number extant: 600–800. Condition census: 50–35.

18-W 1788 INDE*ET LIB* reverse. RR27

Obverse 18. VERMON. AUCTORI* Small round face similar to obverse 17. Letter and star punches identical to those used by Atlee to produce dies for imitation lightweight halfpence, and later dies for Vermont coppers.

Reverse. W. INDE*ET LIB* 1788. Large seated figure; date below single line. Branch touches E of ET. Style similar to Machin's imitation halfpence (cf. Vlack 13-87CT, 13-88CT, and 23-88A).

Estimated number extant: 500–600. Condition census: 50–30.

Dies by James F. Atlee

STANDARD BUST RIGHT DESIGN
(1788–1789)

19-X 1788 Vertical bisecting crack. *ET LIB* *INDE. RR18

Obverse 19. VERMON AUCTORI Widely spaced legend. Tall bust placed far to left; cuirass covered with small dots similar to obverse 15. Bisecting vertical die crack is always present, and very prominent in late state.

Reverse X. *ET LIB* *INDE 1788. Date below single line; 7 is low, 88 touch line. Small crack from leg to T, and at left of branch, not as far advanced as when seen on 20-X.

Usually overstruck on Irish halfpence.

Estimated number extant: 40–50. Condition census: 60–30.

- 20-X 1788 Bust well centered. *ET LIB* *INDE. RR35

Obverse 20. Bust is centered in field; unpunctuated legend with letters closely spaced. A almost touches head.

Reverse X. *ET LIB* *INDE 1788. See previous description.

All known specimens are overstruck on Irish halfpence.

Estimated number extant: 5-6. Condition census: 12-8.

- 21-Y 1788 Low I positioned over chest. B touches shield. RR33

Obverse 21. VERMON* *AUCTORI Large bust with lowest portion very close to border. N and star touch hair; I is low and positioned well over chest. Heavy break runs from top of ribbon to right leg of M. See 21-U for later state of this die.

Reverse Y. *INDE* *ETLIB 1788. Seated figure high in field, staff arm extends above beginning of legend; B touches shield.

All known specimens are overstruck on Irish halfpence.

Estimated number extant: 3-4. Condition census: 30-6.

- 21-U 1788 Horizontal bisecting crack. INDE+ ET·LIB+ RR28

Obverse 21. VERMON* *AUCTORI See previous description. Heavy die crack now bisects coin at neck from border to border. In late state massive break covers tops of ER to border.

Reverse U. INDE+ ET·LIB+ 1788. See previous description of this die when used at the Rupert mint for combination 16-U.

Nearly always seen overstruck on Irish halfpence.

Estimated number extant: 25-30. Condition census: 50-20.

- 22-U 1788 Heavy break from forehead to OR. RR29

Obverse 22. *VERMON* *AUCTORI* Shallow bust positioned slightly to left and nearly touching legend. Star after I, below edge of bust. Large die crack extends from border above head through field, across forehead to base of OR.

Reverse U. INDE+ ET·LIB+ 1788. See previous description. While at Newburgh this die was subsequently used to produce an additional quantity of the combination 16-U, and was later pressed into service again c.1790 for use with obverses 24, 25, 16 and 22, in that order.

In the final 22-U marriage the reverse die is completely shattered with large breaks extending from border into field at several

points, and a massive failure covering much of the field behind Liberty. Dies for the final combination aligned ↑ ↖.

Early strikes are occasionally seen overstruck on Irish halfpence, or of brassy composition.

Estimated number extant:	Condition census:	
First issue:	25–30	60–20
Shattered reverse:	10–12	25–12

- 16-S 1788 Heavy die break at neck. Unpunctuated reverse. RR24

Obverse 16. VERMON+ AUCTORI+ See previous description. Obverse die break at neck now advanced to 6 mm. long. Small crack extends from laurel to rim above head.

Reverse S. INDE ET LIB 1788. See previous description.

Dies usually slightly misaligned.

Estimated number extant: 250–300. Condition census: 45–20.

MULED, WORN or REJECTED DIES (1789–1790)

- 23-S 1788 Backward C in AUCTORI. RR30

Obverse 23. VERMON* AUCTORI Letters in VERMON unevenly spaced with O very low and touching M; C in AUCTORI is backward. Bottom of cuirass crudely cut; all features of bust are weak; surface slightly convex.

Reverse S. INDE ET LIB 1788. See previous description. In late state, die has cracked above head and pole, to ET.

Dies are misaligned ↑ ↙.

Estimated number extant: 13–15. Condition census: 50–15.

- 24-U 1788 GEORGIVS· III· REX· obverse. RR31

Obverse 24. GEORGIVS· III· REX· Bust of George III from Atlee punch used to make imitation halfpence as well as Vermont coins.

Reverse U. INDE+ ET· LIB+ 1788. See previous description of this die which was first used at the Rupert mint. Die deterioration evidence now noticeable around border of coins from this muling, which was made subsequent to the last 16-U combination.

In late state, dies have rotated slightly.

Estimated number extant: 50–60. Condition census: 50–20.

25-U 1788 AUCTORI CONNEC. Small head. M.1-I

Obverse 25. AUCTORI CONNEC Atlee's small head obverse originally used to coin Connecticut coppers in 1787 and 1788. Die is worn and bulged.

Reverse U. INDE+ ET·LIB+ 1788. See previous description. Subsequent to this issue, the late state combinations of 16-U, and 22-U were produced, in that order.

Planchets are usually small and crude. Dies aligned | \ .

Estimated number extant: 10–12. Condition census: 25–10.

26-Z 1785 IMMUNE COLUMBIA reverse. RR1

Obverse 26. VERMON AUCTORI Legend is unevenly spaced with RMON crowded together; I touches bust. A late state break extends from rim through T, to mouth. This is probably a rejected die originally intended for use at the Rupert mint.

Reverse Z. IMMUNE COLUMBIA 1785. Seated figure of Columbia facing right; date below double line.

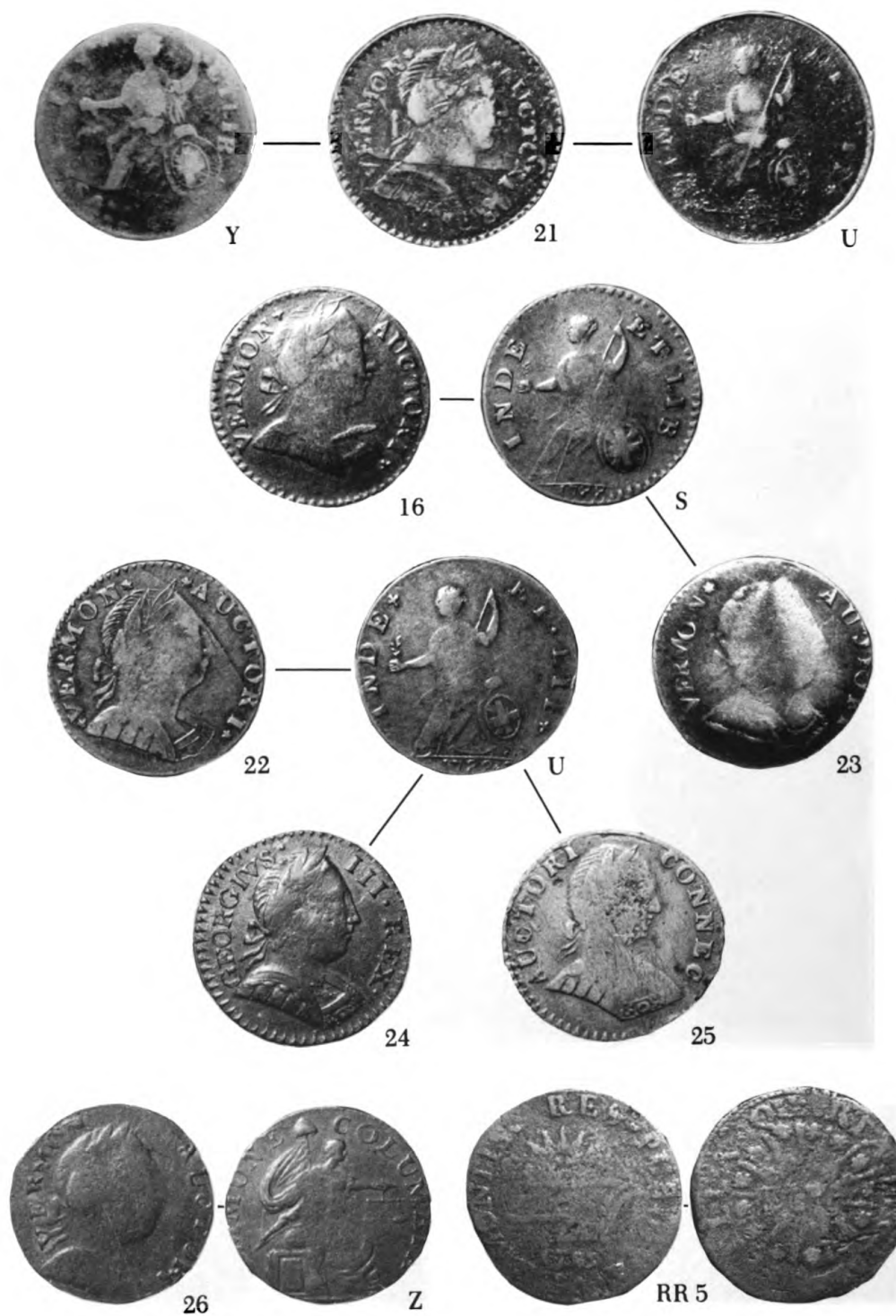
This is a die originally brought to New Jersey by Wyon's pupil, Walter Mould. Never used for production, it was later purchased by Machin along with other Morristown mint equipment and eventually muled with the rejected Vermont obverse, and an equally poor GEORGIVS III. REX. die (Vlack 15-85 N Y).

Estimated number extant: 20–25. Condition census: 40–15.









CHAPTER 12

George Washington's Unique 1792 Pattern in Gold

Eric P. Newman

The unique 13 Star gold pattern of 1792 bearing Washington's portrait presents many interesting problems to the numismatist. Designed and coined before the April 2, 1792 Mint Act was passed and before construction of the first Federal minting facilities in Philadelphia, it would be the earliest gold pattern for a proposed United States coinage. It is the purpose of this study to argue that the gold coin was a gift to Washington, as President, as part of a sales promotion of a private English manufacturer toward obtaining a contract to strike U.S. coins. Copper patterns from the same pair of dies were submitted to the officials in charge of planning U.S. coinage.



1792 Washington President 13 Star Pattern in gold

Associated Pieces

There are several types and varieties of 1792 Washington bust patterns for United States coinage.

(A) There are 1792 patterns in silver and copper with the obverse legend, G. WASHINGTON PRESIDENT I, made by Peter Getz of Lancaster, Pa., and struck in Philadelphia. The uniformed bust of Washington faces left. One reverse has a small eagle and 15 stars in the field,

For an earlier version of this article, see *Coin World*, January 29, 1975.



1792 G. Washington President I pattern

while the other has a large eagle without stars in the field. None of the pieces bear a denomination on either face or the edge, but the size (diameter 33 mm.) has resulted in them being accepted as half dollar patterns. They are referred to as Getz patterns (Baker 23, 24 and 25).

(B) The 1792 pattern in copper with the undraped bust of Washington in Roman style facing right does not have the initial representing Washington's first name nor the presidential succession Roman numeral I at the end of the obverse legend. The reverse has six stars and bears the denomination CENT. The dies for the piece were cut by John Gregory Hancock of Birmingham, England and struck there by Obediah Westwood. These pieces are referred to as Roman bust patterns (Baker 19).

(C) The 1792 patterns in gold, silver, and copper with a uniformed bust of Washington facing left were prepared from the same device punch used to cut the 1791 WASHINGTON PRESIDENT copper ONE CENT patterns. There is no initial before the name and no numeral at the end of the obverse legend. There are two similar obverse dies. The reverse has 13 stars above the eagle, and there is a ribbon in the eagle's beak, bearing the motto UNUM E PLURIBUS. There is no denomination on either face or on the edge. The dies were also cut by John Gregory Hancock and struck by Obediah Westwood at Birmingham just as were the 1791 pieces. To distinguish these 1792 patterns from all others, they are referred to as the 13 Star patterns (Baker 20 and 21). The gold pattern featured in this article is this variety and has a 17.3 specific gravity. Its horizontal diameter is 32 mm., vertical diameter 31 mm. The copper patterns have a diameter of 30.5 mm., these differences resulting from striking them without a collar.

(D) The 1792 pieces in copper with a reverse bearing a legend of Washington's official offices (Baker 59) instead of an eagle are more in the nature of medals than patterns for coinage, as Crosby agreed, even though the obverse is the same as that on the 13 Star patterns above described.

(E) No other pieces with bust of Washington bear the 1792 date.

Design & Denomination

The design and legend on the 13 Star gold pattern of 1792 was not in full conformity with the legislation submitted to the Senate on Dec. 21, 1791, and approved by that body on Jan. 12, 1792. The bill provided for "an impression or representation of the head of the President of the United States for the time being, . . . his initial . . . his surname at length, the succession of the Presidency numerically and the year of the coinage." The initial and the numerical succession were not on the 13 Star patterns, but all requirements were met in the Getz pattern. This would indicate that the 13 Star pattern was prepared in 1791 and postdated 1792 to compensate for delays in transport from England and in submittal.

In the House of Representatives on March 24, 1792, John Page, a friend of Washington from Virginia, spearheaded a rejection of the personalization of the President in the legend and design and this apparently would not have been done contrary to Washington's wishes. By April 2, 1792, the law establishing the U.S. Mint was fully enacted and all design elements relating to the President had been eliminated.

It can be observed that the 13-Star pattern of 1792 not only has no de-



1791 Washington Large and Small Eagle Cent patterns

nomination but has no space on either face for a denomination, yet both varieties of the 1791 WASHINGTON PRESIDENT pieces previously made by the same maker have the denomination of ONE CENT in the legend. The Roman bust pattern of 1792 also contains the word CENT. This leads to the speculation that the 13-Star patterns of 1792 might have been made in a manner to be used as a cent if made in copper, as a half dollar if made in silver, and as an eagle if made in gold. It was also possible that the denomination could be placed on the edge of the coins in the manner subsequently adopted for the first U.S. half cents, cents, half dollars, and dollars, or not placed on the coin at all as was done in the first U.S. half-dimes, dimes, quarters, quarter eagles, half eagles, and eagles.

Even though some of the 13 Star patterns including the one in gold had UNITED STATES OF AMERICA recessed on the edge, most had plain edges. The weights of the 13 Star patterns do not throw any light on the matter as the gold pattern weighs 251.5 grains (the first U.S. eagle weighs 270), the silver pattern weighs 187 grains (the first U.S. half dollar weighs 208), and the copper pattern weighs 180 grains (the first U.S. cent weighs 208). In making only one in gold, about four in silver, and 10 to 15 in copper, no intent as to denomination can be ascertained from the weights or the quantities produced.

Actually the Birmingham coiners must have been seeking a copper coinage contract because of the profit opportunities. To coin precious metals required a full intrinsic value of gold or silver and therefore little or no profit for the coiner. In addition, the risk of loss in shipping gold or silver coin or bullion would be increased by its coining in England and the danger of seizure while in England was a further hazard. Obediah Westwood had never had a gold or silver coinage contract from anyone because he was in the copper coining business. There was no attempt to sell machinery to, or make only dies for, the United States as that would not have required special samples. On the other hand, the intrinsic value in copper coins would amount to about half of the circulating value and the coiners could take advantage of their improved coining machinery to make a substantial profit and to share some of that profit with the United States.

It therefore seems logical to conclude that the 13 Star patterns of 1792 were for one cent copper pieces and not for half dollars as many writers have suggested with reservations. It must have been a follow-up of the 1791 patterns in copper which were definitely for a copper cent. The elimination of a stated denomination on the coin merely followed the then existing English practice of not putting a denomination on coin.

The conclusion that 13 Star patterns of 1792 were patterns for cents throws new light on the gold piece and on the silver pieces. It indicates that the precious metal pieces were for special presentation rather than as

examples of the product to be sold.

Evidence As To Presentation Practices

The modern evidence located in the papers of Matthew Boulton in the Birmingham Assay Office as to presentation procedures was published in 1931 and shows the practice of a coinage contractor to present specimens of coinage to the top official of the United States. Boulton had written a treatise on copper coinage and had developed new steam powered machinery for coinage at his Soho manufactory in Birmingham. In his letter dated Nov. 25, 1789 to John H. Mitchell of Charleston, S.C., he stated, "Please to take a copy for yourself of my Paper upon Copper Coinage and then present it and also some of my Specimens, and my most respectful Complts. to the truly great & Hon'ble George Washington."

The second piece of modern evidence of presentation practices was located by Robert W. Julian about 1962 when he published "The Digges Letters."

Thomas Digges, an American-born freight operator living in England, had occasion to investigate who was negotiating with the United States when the 1791 Washington President cents were being promoted for sale to the United States. He learned that the coins were sent to the United States in an effort by William and Alexander Walker of Birmingham to obtain the coinage contract. Their partner in Philadelphia was Thomas Ketland. The Walkers told Digges that several hundred weight (of the 1791 coins) "had been sent to America and given to the President & other public gent'n." Digges communicated this to Thomas Jefferson in a March 10, 1793 letter. This evidence reaffirms the practice of presenting the President of the United States with examples of specimen coinage.

To reinforce further the position that George Washington received the gold piece, it would be logical to conclude that if Washington was to receive the customary specimen of a proposed coinage, he would have been given the gold one rather than one of a less important metal. It would have been poor public relations not to give him the most outstanding and valuable specimen. The fact that the patterns for cents were made in silver and gold as well as copper would indicate a purpose for making them in precious metals.

The 13 Star pattern in gold has gentle wear on both sides. The high portions of the shoulders and hair on the obverse and of the shield and eagle's legs on the reverse show smoothness from contact with other coins or from use. The gold piece could not have circulated. It did not have the correct weight for any denomination. It had no fineness indicated by its legend or any issuer to stand behind it.

Similarity to 1785 Immune Columbia Patterns

There is a direct comparison to be made between the 1785 Immune Columbia-Nova Constellatio patterns and the 1792 Washington 13 Star patterns. The Immune Columbia pieces were also made in gold, silver, and copper. They are the same size as the coppers which were in circulation in the United States in 1785. The 1792 Washington 13 Star patterns were larger than the 1785 Immune Columbia pieces because after 1789 in America as well as in England the public insisted on more copper in copper coin to represent the same calculating value as theretofore. No one has ever suggested that the Immune Columbia patterns were for other than a copper coinage. The United States in 1785 primarily needed a copper coinage and there was competition for it. The result was the Fugio cent copper coinage contract let in 1787.

There is one 1785 Immune Columbia pattern in gold (see Appendix), several in silver, and a larger quantity in copper. This is an identical presentation procedure as was later used in the 1792 Washington 13 Star coinage. It must have been a salesmanship practice in the solicitation of copper coinage contracts and the single gold pattern, the few silver patterns, and the larger amount of copper patterns are obvious parallelisms in both situations.

A Contrary Opinion

A recent challenge to the position that the 1792 Washington 13 Star pieces were patterns only for copper coins was published by John J. Ford, *Num* 1975, pp. 1939-49. In that interesting article he asserted that the coiners were prepared to strike coins in any or all of the three metals, namely gold, silver, and copper. He suggested that it could have been considered practical to use the same pair of dies to strike coins in each of the three metals, thus producing three denominations of exactly the same diameter. He referred to the 1792 Washington President 13 Star pieces in gold, silver, and copper as "multidenominational patterns" and then stated that they were presumably struck as a "small scale speculative issue."

Differences of opinion in numismatic matters are not unusual where the facts are not fully available. However, the thought that the United States would issue coins of the same design and diameter, distinguished as to denomination by the metal from which they are made, requires that certain major problems of such a proposed practice be pointed out. The extra care required to make and receive payments would be unusually burdensome, particularly under oil and candle light. The plating of copper

pieces to pass as higher denominations would be too dangerous and too easy.

The punch linking of the 1791 Washington President Cent coinage in copper with the 1792 Washington President 13 Star patterns, coupled with the fact that both are the same diameter, seems to undermine the theory that a gold or silver coinage contract was being sought.

Presumption of a "small scale speculative issue" does not seem justified when (1) a reference is made to the same pieces as patterns; (2) there are no denominational legends, no weight legend, no indicated fineness, and therefore no possibility of circulation; and (3) the quantity made was so insignificant that each of the pieces is an American numismatic rarity.

Owners and Their Comments

Gustavus Adolphus Myers (1801–69) of Richmond, Virginia, was an antiquarian and one of the founders of the Virginia Historical Society in 1831. By 1855 he owned the gold 13 Star pattern of 1792 and wanted to learn more about its background. In that year he wrote a letter, which was published with an answer in *Notes and Queries* (London, Vol. 12, p. 203):

I have a gold coin in my possession, a rough sketch of which I enclose; and which, although much worn, is still of the full value of the American eagle, namely, ten dollars. On inquiring at the United States' Mint, in Philadelphia, a few years since, I found that, in the collection there of specimens of all the federal coins, none like this existed. It attracted much curiosity; but nothing of its history could be learned. A very intelligent officer of the institution informed me, that he conjectured it was stamped in Birmingham. The name of Washington President, appearing upon it, renders it an object of greater interest; as it is generally understood, and believed, that while that distinguished man was president of the United States, learning that a coinage was about to be stamped at the mint, bearing his effigy, he immediately arrested the proceeding. A few copper coins had however been struck, which were never issued; and which I believe are still preserved in the collection to which I have above referred. No gold or silver coin of the same stamp was ever struck in the United States of America. The coin in my possession was evidently intended for circulation. Its style of execution is rather rough, and the motto upon the scroll in the eagle's beak, "Unum e pluribus," is not correct: that upon the federal money having been, "E pluribus unum." If you can through any of your readers, afford me any information touching the subject of my inquiry,

you will greatly oblige G.A. Myers. Richmond, Virginia (U.S.A.)

(This American piece was struck at Birmingham by Hancock, an engraver of dies of considerable talent. Of these pieces there are several varieties: one, without date on the obverse; on reverse, American eagle, shield on breast, olive branch in one claw, arrows in the other; above, stars, cloud, and "ONE CENT"; edge, "UNITED STATES OF AMERICA;" below, "1791." Another, date under head, "1791;" reverse, eagle as above, but larger; in beak a scroll. "UNUM E PLURIBUS;" above, "ONE CENT;" no stars, cloud, or date. Another profile of Washington to the right, fillet round the head, no dress; legend as above; date "1792;" reverse, eagle with shield olive and arrows; above "CENT;" Edges of all the same. These are all of copper, and were said to have been patterns for an intended coinage, but not approved.)

It can be pointed out that there is an important inaccuracy in the above inquiry in that Mr. Myers asserts that the Washington gold pattern had the "full value of the American eagle." There had been a weight reduction of the eagle in 1834 from 270 to 258 grains so that the comparison was inapplicable.

Myers gave the gold pattern to his close friend, Mendes I. Cohen (1796–1879) of Baltimore as evidenced by a handwritten entry in Cohen's copy of the Mickley sale catalogue. Cohen retired at age 33 to travel and collect antiquities. At the age of 79, Cohen sold his coin collection through Bangs Merwin & Co., New York, Oct. 25–29, 1875. The Washington 1792 pattern in gold constituted lot No. 1488 and was described by Edward Cogan in the catalog as follows:

1792 Ob. Head to left. Washington President. Rev. Spread Eagle with scroll. "Unum E. Pluribus." 13 stars over head. United States of America, on the edge.

This is in Gold and one of the most interesting pieces ever offered to American collectors, and as no other piece has ever been heard of, in this Metal, it is as fairly entitled to be called unique as any other coin that can be named. In the absence of any positive history connected with this piece I think it was most probably struck in compliment to General Washington and no other in Gold was allowed to be issued. It was possibly used for some time as a pocket piece which would account for the evidence of slight circulation it exhibits. Be this as it may it will be invaluable to any one collecting Washington Coins or Medals.

The June 1882 *Mason's Coin Collector's Magazine* carried an an-

nouncement that the 1792 gold piece was for sale for \$500. At this time Lorin G. Parmelee probably acquired it. When the Parmelee collection was sold at auction on June 25, 1890, the gold piece (Lot 618) was featured by being illustrated on the cover of the catalogue and on Plate 11, indicating its stellar position among quantities of great American rarities. For the provenance, the catalogue stated, "It is very probable that Washington had this piece given him and the slight wear it shows would indicate its use as a pocket piece."

Harlan P. Smith (1838–1902) and David Proskey (1858–1928), as the New York Coin & Stamp Co., ran the sale. Smith was a vigorous collector and bought the gold piece for \$220. Carl Wurtzbach in a letter to Burdette G. Johnson in 1943 stated that he knew Smith had owned the Washington 13 Star patterns of 1792 in gold, silver and copper.

However, when the Smith collection was sold in 1906 by the Chapmans, none of those pieces was included. Who owned it or secreted it for the next 20 years is a mystery. If it had been for sale, Waldo Newcomer (1866–1934) of Baltimore, Virgil Brand (1866–1926) of Chicago, or John W. Garrett (1872–1942) of Baltimore, would have been eager buyers. Walter Breen stated that Brand was an owner (*Numismatic News*, Nov. 27, 1973), but there is no record of it in Brand's acquisition and inventory book.

In any event Wayte Raymond sold it to Edward H. R. Green of Round Hill, Mass., in the 1925–30 period. After the death of Hetty Green's famous son, the gold piece was sold through B. G. Johnson in 1941 and is still privately held.

Appendix

I stated above that there is only one 1785 Immune Columbia in gold. It should be pointed out that another one appeared about 1957. The original 1785 Immune Columbia in gold was documented in 1843 when it became part of the U.S. Mint Cabinet; it is now in the Smithsonian Institution.

The piece appearing in 1957 has on the obverse what appears to be a die break from the border to the scales. This apparent die break is in the identical position as a planchet defect on a previously known 1785 Immune Columbia in copper. The planchet defect on the copper piece is a thin metal split or lift, the opening being visible on the edge and the separation continuing to the scales. The defect has no relationship to the die and no other theretofore known piece in any metal has any trace of a die break in that area. The gold piece appearing in 1957 has other charac-



Immune Columbia Forgery

teristics peculiar to the defective planchet copper piece such as corrosion spots, which appear only on that copper piece and in the same location. This leads to the conclusion that an obverse intaglio die for the gold piece appearing in 1957 was made by the electrotyping process from the copper Immune Columbia obverse which had the planchet defect and the corrosion spots. The Columbia/Nova Constellatio reverse of the Immune Columbia gold piece appearing in 1957 is not the same reverse die variety as that on the original Immune Columbia gold piece. The variety of the reverse of the gold piece appearing in 1957 was the same as another previously known Nova Constellatio die variety and has been modified slightly by polishing. It may be concluded therefore that an intaglio die was similarly prepared by the electrotyping process for the reverse. There are also other silver and copper Immune Columbia-Nova Constellatio pieces which first made their appearance about 1957.

In the editions of Yeoman's *Guide Book* from 1947 through 1959 the 1785 Immune Columbia piece in gold is described as "unique"; in the editions from 1960 through 1968 this comment was changed to "2 known"; and in the editions from 1969 to date the comment has been changed to "extremely rare". In Taxay's *Comprehensive Catalogue*, the 1785 Immune Columbia in gold is described as "unique" and there is no mention of the Immune Columbia gold piece which appeared about 1957. Taxay and others had carefully studied the 1785 Immune Columbia gold piece appearing in 1957 before the preparation of the first edition, and Taxay determined not to include it.

CHAPTER 13

Thomas Jefferson and the Founding of the Mint

Don Taxay

Of all the persons, celebrated or otherwise, to whom our national coinage acknowledges some debt or association, there is none whose influence has been so deep or abiding as that of Thomas Jefferson. One can, indeed, write a history of its formative period simply by following the Jeffersonian thread, as it wends its way through the quilt of problems and controversy that characterized the subject during the last quarter of the eighteenth century. True, the thread begins unobtrusively, even covertly, in so far as history records, but it possesses that peculiar Jeffersonian emphasis which, to our way of thinking, is unmistakable.

The year is 1776. Urgent appeals have been made to the Continental Congress to establish a mint in order to introduce hard cash into a circulation of predominately paper currency. During the last week in June, Congress resolved to strike silver dollars and large copper pence, using the same dies for each. Various newspapers mentioned the "large copper coin," and what immediately catches our attention is the fact that it was to pass current at twelve to an eighth of a dollar, or Spanish bit. This is nothing less than decimal money arithmetic, as expressed through the Spanish system of eights! For convenience, the new copper coin was related to a familiar denomination, but in the actual practice of making change, the fraction would naturally have been dropped, so that the penny would be worth precisely one hundredth of the proposed silver dollar. This is unlikely to have been a coincidence, especially as so large a copper coin was unusual by comparison to the ubiquitous English half-penny.

To whom shall we attribute this novel idea? If our reasoning is correct, we must inevitably arrive at the doorstep of the delegate from Virginia, whose advocacy of decimal reckoning, not only in coinage, but in weights and measures, and even in the calculation of time, was then unprecedented in America. There is also the fact that just one month later the delegate in question, Thomas Jefferson, was added to a coinage committee of Congress, and he revised a report of that committee *so as to express the value of various foreign coins in decimals*. Thus, despite the fragmentary nature of our evidence, a picture begins to emerge. It starts,

perhaps, on June 11, when Jefferson was suddenly catapulted into prominence by his selection as the man to write the Declaration of Independence. It continues with the dictum that coinage is a peculiar attribute of sovereignty, and that the prerogative which Britain consistently denied to the colonies should now be prosecuted with all due haste in order to lend support to faltering American paper currency and to relieve the existing shortage of coins due to hoarding.

But with almost every colony reckoning its money at different rates, what sort of coinage would be agreeable to them all? For whatever facilitated trade in one colony could prove cumbrous in another. This was a question which would be argued at great length in later years. For Jefferson, however, the solution was clear and unequivocal. Throw off the yoke of English pounds, shillings, and pence, and begin anew with a simple and universally accepted decimal system. It was this idea that Congress resolved to implement in late June, only two weeks after Jefferson had been appointed to the unique task of spokesman for the embryonic nation. Thus, when Jefferson was added to the coinage committee, it was not merely as another member, but as an authority whose ideas of decimal money arithmetic were to guide that committee in its conclusions. To be sure, its assignment, which was merely to calculate the value of the various circulating foreign coins in terms of the Spanish dollar, was not of great significance. But the fact that its earlier report had been tabled pending its revision by Jefferson is an indication of the latter's role and stature in such matters.

Unfortunately, by the time Congress finally decided to take action, a general mistrust of paper currency had made it impossible to obtain the requisite bullion for coining. A few silver dollars were struck, together with some brass patterns for a penny; in January 1777, the pewter impressions which are somewhat more common were probably coined, but in the end the entire project was abandoned. The logic that had been put forth on behalf of a decimal coinage remained very much alive however, awaiting only some more propitious occasion for its exposition and inevitable adoption by Congress.

The second chapter begins in the Spring of 1781, when, after a long depreciation, the Continental paper currency had ceased to have value. Once again there were proposals to establish a mint, and the new project was left in the hands of Robert Morris, an able Philadelphia Merchant whose ability to negotiate loans for the Congress had earned him the appointment of Superintendent of Finance.

Always a conservative, Morris favored the English way of doing things. Here was a man who had even opposed the Declaration of Independence as being premature, who held out hope for reconciliation long after it was obvious that no such reconciliation was possible. Faced now with the task

of establishing a uniform system of currency, he sought to retain the old English standard of pounds, shillings, and pence as it had applied in the erstwhile colonies. This meant the preservation of several different and coeval standards, for though each of the colonies reckoned current coins according to the English system, they did so at different rates. The Spanish milled dollar, which was for all practical purposes the coin of the realm, was worth five Georgia shillings, six of Virginia and the New England states, eight of New York and North Carolina, and seven shillings and sixpence in the currencies of the other states, excepting South Carolina, where it passed at thirty-two shillings and sixpence. To unify the various reckonings (except that of South Carolina, which was too aberrant arithmetically), Morris, or, more properly, his assistant (Gouverneur Morris though no relation), worked out a unit by which all could be converted without the use of a fraction, and this was $1/1440$ of a Spanish dollar, or $1/1600$ of the British crown. Morris then advocated a number of coins to be valued, respectively, at 5, 8, 100, 500, and 1,000 units. In converting these denominations to the reckoning of the various colonies, it was necessary to calculate the unit value in terms of each of their shillings, which was done by dividing 1440 by the number of shillings equal to the dollar. This extraordinarily complicated plan was received with little enthusiasm by Congress, and the whole affair dragged on for two years, by which time Morris had gone to the length of having a number of patterns struck in conformity with his provisions.

Fortunately, Jefferson was again elected to the Continental Congress in June 1783, and soon afterward appointed Chairman of the currency committee. Here he learned of the Morris plan, which he at once opposed as "defective in two of the three requisites of a money unit." First,

It is inconvenient in its application to the ordinary money transactions. 10,000 dollars will require 8 figures to express them, to wit, 14,400,000. A horse or bullock of 80 dollars value will require a notation of six figures, to wit 115,200 units. As a money of account this will be laborious even when facilitated by the aid of decimal arithmetic. As a common measure of the value of property it will be too minute to be comprehended by the people. The French are subjected to very laborious calculations, the livre being their ordinary money of account, and this but between the $1/5$ and $1/6$ of a dollar. But what will be our labours should our money of account be $1/1440$ of a dollar?" And secondly,

"It is neither equal nor near to any of the known coins in value.

Ultimately, the only justification for the Morris plan lay in its facility to convert the currencies of the diverse colonial systems. Jefferson laid the ax

to the root of the plan when he observed that "as our object is to get rid of those currencies, the advantage derived from this coincidence will soon be past." He proposed an alternate decimal system, in which the unit would be a dollar, equal to the Spanish milled dollar.

The unit or dollar is a known coin and the most familiar of all to the mind of the people. It is already adopted from South to North, has identified our currency and therefore happily offers itself as an Unit already introduced. Our public debt, our requisitions and their apportionments have given it actual and long possession of the place of Unit. The course of our commerce too will bring us more of this than of any other foreign coin, and therefore renders it more worthy of attention. I know of no Unit which can be proposed in competition with the dollar, but the pound: But what is the pound? 1547 grains of fine silver in Georgia: 1289 grains in Virginia, Connecticut, Rhode Island, Massachusetts and New Hampshire; $1031\frac{1}{4}$ grains in Maryland, Delaware, Pennsylvania and New Jersey; $966\frac{3}{4}$ grains in North Carolina and New York.

Which of these shall we adopt? To which State give that preeminence of which all are so jealous? And on which impose the difficulties of a new estimate for their coin, their cattle and other commodities. Or shall we hang the pound sterling as a common badge about all their necks? This contains $1718\frac{3}{4}$ grains of pure silver. It is difficult to familiarise a new coin to a people. It is more difficult to familiarise them to a new coin with an old name. Happily the Dollar is familiar to them all, and is already as much referred to for a measure of value as their respective State pounds.

Jefferson suggested the issue of a gold ten dollar piece, a unit, or silver dollar, a half dollar, double tenth, tenth, twentieth, and copper hundredth. He pointed out that each of these denominations was similar to a coin already circulating, the gold piece to the Portuguese half joe and the British double guinea, the silver dollar and its fractions to the Spanish dollar with its bits, and the copper hundredth to the English halfpenny.

Jefferson's plan was adopted in its general principles on July 6, 1785, and in a more detailed form in August of the following year. For all this, however, another six years would elapse before Congress decided to implement a resolution calling for the establishment of a mint and a decimal coinage. Not procrastination, but vested interests were behind the delay. These interests did not oppose a United States coinage. On the contrary, they wanted the business of producing it, or at least the copper portion of it, for base metal coins were fiduciary even in those days, and

they yielded a substantial profit to their manufacturer. The climax came in 1787, when no less than the head of the Board of Treasury for the Continental Congress instigated a conspiracy with New York businessman James Jarvis, selling him such a contract, thereby violating the competition that had been arranged to solicit individual bids.

As it turned out, Jarvis lacked the financial backing to complete the undertaking, and succeeded ultimately in striking only some 400,000 coins. Worse still, the preoccupation of Congress with contract coinage had the effect of nullifying Jefferson's own efforts to push forward the mint project through the assistance of Jean Pierre Droz, a prominent Swiss coiner. Droz was not only one of the finest engravers in Europe, but the inventor of a coinage press that utilized a segmented collar so as to strike both sides and the edge of a planchet in one stroke. It was not until 1907 that the U.S. Mint acquired a similar technology! When serving as our resident minister at Paris, Jefferson witnessed an exhibition of Droz's technology, and began negotiations with him in order to obtain some of his presses for the proposed U.S. Mint. On January 9, 1787, at a time when the Board of Treasury was going through the motions of soliciting offers for a contract coinage, Jefferson wrote to John Jay:

Observing by the proceedings of Congress that they are about to establish a coinage, I think it my duty to inform them, that a Swiss, of the name of Drost, established here, has invented a method of striking the two faces and the edge of a coin at one stroke. By this and other simplifications of the process of coinage he is enabled to coin from 25000 to 30000 pieces a day, with the assistance of only two persons, the pieces of metal being first prepared. I send you by Colo. Franks three coins of gold, silver and copper, which you will perceive to be perfect medals, and I can assure you from having seen him coin many, that every piece is as perfect as these. There has certainly never yet been seen any coin, in any country, comparable to this. The best workmen in this way acknowledge that his is like a new art. Coin should always be made in the highest perfection possible because it is a great guard against the danger of false coinage. This man would be willing to furnish his implements to Congress, and if they please, he will go over and instruct a person to carry on the work; nor do I believe he would ask anything unreasonable. It would be very desirable that in the institution of a new coinage, we could set out on so perfect a plan as this, and the more so, as while the work is so exquisitely done, it is done cheaper

In the absence of any positive action from Congress, Droz accepted an offer to join Boulton and Watt at their famous private mint in Bir-

mingham, England. By an odd twist of fate, it was only a few months later that James Jarvis arrived in Birmingham in the hope of subcontracting with Matthew Boulton to furnish the American coppers. A lengthy correspondence ensued, but in the end Jarvis's inability to furnish security for the work terminated negotiations. Having not only defaulted on his contract, but having used a large quantity of Government copper for his own purposes, Jarvis fled to Europe, passing out of the history of early American coinage. Boulton and Droz, on the contrary, continue to interlace our early Mint history through the central figure of Jefferson.

In 1789, another American entrepreneur, John Hinkley Mitchell of Charleston, South Carolina, visited Boulton and Watt, and, upon returning to this country, began to lobby in Congress on their behalf. The following year Mitchell presented Boulton's proposals to Congress which, however, referred them to its new Secretary of State.

As it turned out, the Secretary was none other than Jefferson, who immediately recognized the samples presented by Mitchell as being the work of Droz. On April 14, Jefferson submitted to Congress a brilliant rebuttal which at once praised the merits of the Boulton coinage, yet pointed out the impracticality of importing it from another country.

... the propositions under consideration suppose that the Work is to be carried on in a foreign Country, and that the implements are to remain the property of the Undertaker; which conditions, in his opinion, render them inadmissible, for these reasons.

Coinage is peculiarly an Attribute of Sovereignty. To transfer its exercise into another Country, is to submit it to another Sovereign.

Its transportation across the Ocean, besides the ordinary dangers of the Sea, would expose it to acts of piracy by the crews to whom it would be confided, as well as by others apprised of its Passage.

In time of War it would offer to the enterprizes of an enemy what have been emphatically called the Sinews of War.

If the War were with the Nation within whose Territory the Coinage is, the first Act of War or Reprisal might be to arrest this Operation with the implements and Materials coined and uncoined, to be used at their discretion.

The Reputation and Principles of the present Undertaker are Safeguards against the abuses of a Coinage carried on in a foreign Country, where no Checks could be provided by the proper Sovereign, no Regulations established, no Police, no Guard exercised, in short none of the numerous Cautions hitherto thought essential at every Mint; but in hands less entitled to con-

fidence, these will become dangers. We may be secured indeed, by proper experiments as to the purity of the Coin delivered us according to Contract, but we cannot be secured against that which, though less pure, shall be struck in the genuine Die, and protected against the vigilance of Government, 'till it shall have entered into Circulation.

We lose the Opportunity of calling in and recoinng the clipped Money in circulation, or we double our risks by a double transportation.

We lose in like manner, the resource of coining up our Household plate in the instant of great distress.

We lose the means of forming Artists to continue the Works, when the common Accidents of a Mortality shall have deprived us of those who began them.

In fine, the carrying on a Coinage in a foreign Country, as far as the Secretary knows, is without example, and general example is weighty Authority.

He is therefore of opinion on the whole.

That a Mint, whenever established, should be established at home; That the Superiority, the Merit, and Means of the Undertaker [i.e. Droz] will suggest him as the proper person to be engaged in the establishment and conduct of a Mint on a scale which, relinquishing nothing in the perfection of the Coin, shall be duly proportioned to our purposes.

Unable to circumvent Jefferson's opposition, Boulton now altered his proposals. Should the Congress be willing to contract for its copper coinage only, he would then bring over to the United States the requisite machinery and assist in the establishing of its new mint. This idea seems to have briefly intrigued even Jefferson, though he was ultimately dissuaded by the belief that he would yet be able to engage Droz for the project. This much seemed almost certain until October, 1791, when the Swiss artist suddenly and mysteriously declined, leaving the Secretary with the onerous task of having to create a mint almost entirely out of local talent.

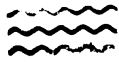
Not surprisingly, the formative years of the institution were far from easy. Most of the machinery had to be built by its employees, some of it, in the absence of models, from theoretical principles. The men worked eleven hours a day, six days a week, and were apt to be carried off every summer during the yellow fever epidemic. There were difficulties in obtaining sufficient quantities of good copper for the cents and half cents, and much of the gold and silver coinage was exported or melted down by speculators due to the unwillingness of Congress to legislate its proper weight and fineness. Politically, the Mint fared little better. Because it had been placed under the supervision of the State Department, which

was then headed by Jefferson, it was attacked by the Federalists, and this eventually induced a similar response from the Republicans who, with an inverse logic, assailed the Mint as a "Federalist creation," monarchical, unproductive, expensive and personifying centralized power. And so the political football passed forth and back. Several times, our early Mint came very close to being abolished by Congress. Its members were so caught up in their own rhetoric and so disinterested in adopting the simple measures by which the Mint might have been quickly transformed into an efficient and productive institution, that the amount of early United States coinage was far below the goals of its planners.

But the Mint survived, and with it a thousand early memories. President Washington used to visit it daily on his way to or from his residence on High Street, only a few blocks away. David Rittenhouse, the greatest physicist in America, and Benjamin Rush, its most celebrated chemist and physician, worked there as Director and Treasurer. And through it all, we find the thread of Thomas Jefferson who, for some two decades, nurtured and guided the principles of American coinage to their final implementation in the first public building ever erected by an act of Congress.

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